

Mikhail I Katsnelson

List of Publications by Citations

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

396
papers

70,447
citations

85
h-index

264
g-index

422
ext. papers

77,637
ext. citations

6.9
avg, IF

8.03
L-index

#	Paper	IF	Citations
396	Two-dimensional gas of massless Dirac fermions in graphene. <i>Nature</i> , 2005 , 438, 197-200	50.4	16518
395	Detection of individual gas molecules adsorbed on graphene. <i>Nature Materials</i> , 2007 , 6, 652-5	27	6263
394	The structure of suspended graphene sheets. <i>Nature</i> , 2007 , 446, 60-3	50.4	4019
393	Control of graphene's properties by reversible hydrogenation: evidence for graphane. <i>Science</i> , 2009 , 323, 610-3	33.3	3338
392	Chiral tunnelling and the Klein paradox in graphene. <i>Nature Physics</i> , 2006 , 2, 620-625	16.2	2959
391	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. <i>Nanoscale</i> , 2015 , 7, 4598-810	7.7	2015
390	Field-effect tunneling transistor based on vertical graphene heterostructures. <i>Science</i> , 2012 , 335, 947-50	33.3	1991
389	Chaotic Dirac billiard in graphene quantum dots. <i>Science</i> , 2008 , 320, 356-8	33.3	1811
388	Unconventional quantum Hall effect and Berry phase of 2D bilayer graphene. <i>Nature Physics</i> , 2006 , 2, 177-180	16.2	1621
387	Intrinsic ripples in graphene. <i>Nature Materials</i> , 2007 , 6, 858-61	27	1357
386	Energy gaps and a zero-field quantum Hall effect in graphene by strain engineering. <i>Nature Physics</i> , 2010 , 6, 30-33	16.2	1317
385	Graphene: carbon in two dimensions. <i>Materials Today</i> , 2007 , 10, 20-27	21.8	1177
384	Fluorographene: a two-dimensional counterpart of Teflon. <i>Small</i> , 2010 , 6, 2877-84	11	979
383	Molecular doping of graphene. <i>Nano Letters</i> , 2008 , 8, 173-7	11.5	907
382	Half-metallic ferromagnets: From band structure to many-body effects. <i>Reviews of Modern Physics</i> , 2008 , 80, 315-378	40.5	701
381	Modeling of graphite oxide. <i>Journal of the American Chemical Society</i> , 2008 , 130, 10697-701	16.4	654
380	Graphene: Carbon in Two Dimensions 2012 ,		626

379	Commensurate/incommensurate transition in graphene on hexagonal boron nitride. <i>Nature Physics</i> , 2014 , 10, 451-456	16.2	582
378	Electron tunneling through ultrathin boron nitride crystalline barriers. <i>Nano Letters</i> , 2012 , 12, 1707-10	11.5	579
377	Chemical Functionalization of Graphene with Defects. <i>Nano Letters</i> , 2008 , 8, 4373-4379	11.5	536
376	Zitterbewegung, chirality, and minimal conductivity in graphene. <i>European Physical Journal B</i> , 2006 , 51, 157-160	1.2	529
375	Macroscopic graphene membranes and their extraordinary stiffness. <i>Nano Letters</i> , 2008 , 8, 2442-6	11.5	528
374	Ab initio calculations of quasiparticle band structure in correlated systems: LDA++ approach. <i>Physical Review B</i> , 1998 , 57, 6884-6895	3.3	523
373	Proton transport through one-atom-thick crystals. <i>Nature</i> , 2014 , 516, 227-30	50.4	505
372	Room-temperature ferromagnetism in graphite driven by two-dimensional networks of point defects. <i>Nature Physics</i> , 2009 , 5, 840-844	16.2	487
371	Strength of effective Coulomb interactions in graphene and graphite. <i>Physical Review Letters</i> , 2011 , 106, 236805	7.4	369
370	Finite temperature lattice properties of graphene beyond the quasi-harmonic approximation. <i>Physical Review Letters</i> , 2009 , 102, 046808	7.4	363
369	Finite-temperature magnetism of transition metals: an ab initio dynamical mean-field theory. <i>Physical Review Letters</i> , 2001 , 87, 067205	7.4	324
368	Effect of a high-kappa environment on charge carrier mobility in graphene. <i>Physical Review Letters</i> , 2009 , 102, 206603	7.4	304
367	Strong Coulomb drag and broken symmetry in double-layer graphene. <i>Nature Physics</i> , 2012 , 8, 896-901	16.2	303
366	Limits on charge carrier mobility in suspended graphene due to flexural phonons. <i>Physical Review Letters</i> , 2010 , 105, 266601	7.4	297
365	Chemical functionalization of graphene. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 344205	1.8	286
364	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	278
363	First-principles studies of water adsorption on graphene: The role of the substrate. <i>Applied Physics Letters</i> , 2008 , 93, 202110	3.4	273
362	Production of Highly Monolayer Enriched Dispersions of Liquid-Exfoliated Nanosheets by Liquid Cascade Centrifugation. <i>ACS Nano</i> , 2016 , 10, 1589-601	16.7	271

361	Antiferromagnetism and d-wave superconductivity in cuprates: A cluster dynamical mean-field theory. <i>Physical Review B</i> , 2000 , 62, R9283-R9286	3.3	264
360	Structural and Electronic Properties of Germanene on MoS ₂ . <i>Physical Review Letters</i> , 2016 , 116, 256804	7.4	260
359	Resonant scattering by realistic impurities in graphene. <i>Physical Review Letters</i> , 2010 , 105, 056802	7.4	260
358	Spin dynamics in magnets: Equation of motion and finite temperature effects. <i>Physical Review B</i> , 1996 , 54, 1019-1035	3.3	254
357	Dual fermion approach to nonlocal correlations in the Hubbard model. <i>Physical Review B</i> , 2008 , 77,	3.3	252
356	Increasing the elastic modulus of graphene by controlled defect creation. <i>Nature Physics</i> , 2015 , 11, 26-31	6.2	235
355	Interaction-driven spectrum reconstruction in bilayer graphene. <i>Science</i> , 2011 , 333, 860-3	33.3	226
354	Giant nonlocality near the Dirac point in graphene. <i>Science</i> , 2011 , 332, 328-30	33.3	217
353	Exchange interactions and spin-wave stiffness in ferromagnetic metals. <i>Journal of Physics F: Metal Physics</i> , 1984 , 14, L125-L128		212
352	Vacuum polarization and screening of supercritical impurities in graphene. <i>Physical Review Letters</i> , 2007 , 99, 236801	7.4	207
351	Germanene: the germanium analogue of graphene. <i>Journal of Physics Condensed Matter</i> , 2015 , 27, 443002	6.2	205
350	Origin of anomalous water permeation through graphene oxide membrane. <i>Nano Letters</i> , 2013 , 13, 3930-5	6.5	205
349	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, 3282-6	11.5	197
348	Ab initio spin dynamics in magnets. <i>Physical Review Letters</i> , 1995 , 75, 729-732	7.4	195
347	Dual origin of defect magnetism in graphene and its reversible switching by molecular doping. <i>Nature Communications</i> , 2013 , 4, 2010	17.4	189
346	Mn ₁ AX _n phases in the TiSiC system studied by thin-film synthesis and ab initio calculations. <i>Physical Review B</i> , 2004 , 70,	3.3	188
345	Atomic collapse and quasi-Rydberg states in graphene. <i>Physical Review Letters</i> , 2007 , 99, 246802	7.4	181
344	Enhancement of Chemical Activity in Corrugated Graphene. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 14176-14178	3.8	173

343	Density of states and zero Landau Level probed through capacitance of graphene. <i>Physical Review Letters</i> , 2010 , 105, 136801	7.4	172
342	Magnon-assisted tunnelling in van der Waals heterostructures based on CrBr ₃ . <i>Nature Electronics</i> , 2018 , 1, 344-349	28.4	167
341	Modeling electronic structure and transport properties of graphene with resonant scattering centers. <i>Physical Review B</i> , 2010 , 82,	3.3	164
340	First-principles calculations of magnetic interactions in correlated systems. <i>Physical Review B</i> , 2000 , 61, 8906-8912	3.3	159
339	Optimal Hubbard models for materials with nonlocal Coulomb interactions: graphene, silicene, and benzene. <i>Physical Review Letters</i> , 2013 , 111, 036601	7.4	155
338	Two-dimensional Mott-Hubbard electrons in an artificial honeycomb lattice. <i>Science</i> , 2011 , 332, 1176-9	33.3	153
337	Toward a realistic description of multilayer black phosphorus: From GW approximation to large-scale tight-binding simulations. <i>Physical Review B</i> , 2015 , 92,	3.3	146
336	Spectroscopic metrics allow in situ measurement of mean size and thickness of liquid-exfoliated few-layer graphene nanosheets. <i>Nanoscale</i> , 2016 , 8, 4311-23	7.7	142
335	Pseudomagnetic fields and ballistic transport in a suspended graphene sheet. <i>Physical Review Letters</i> , 2008 , 101, 226804	7.4	127
334	Scaling properties of flexible membranes from atomistic simulations: Application to graphene. <i>Physical Review B</i> , 2009 , 80,	3.3	126
333	Theory of bulk and surface quasiparticle spectra for Fe, Co, and Ni. <i>Physical Review B</i> , 2007 , 76,	3.3	126
332	Ultrafast optical modification of exchange interactions in iron oxides. <i>Nature Communications</i> , 2015 , 6, 8190	17.4	125
331	Nonlinear screening of charge impurities in graphene. <i>Physical Review B</i> , 2006 , 74,	3.3	125
330	Transition-metal adatoms on graphene: Influence of local Coulomb interactions on chemical bonding and magnetic moments. <i>Physical Review B</i> , 2011 , 84,	3.3	122
329	The most incompressible metal osmium at static pressures above 750 gigapascals. <i>Nature</i> , 2015 , 525, 226-9	50.4	121
328	Monte Carlo study of the semimetal-insulator phase transition in monolayer graphene with a realistic interelectron interaction potential. <i>Physical Review Letters</i> , 2013 , 111, 056801	7.4	121
327	Relaxation of moiré patterns for slightly misaligned identical lattices: graphene on graphite. <i>2D Materials</i> , 2015 , 2, 034010	5.9	114
326	High-temperature ferromagnetism of sp electrons in narrow impurity bands: application to CaB ₆ . <i>Journal of Physics Condensed Matter</i> , 2006 , 18, 7209-7225	1.8	114

- 325 Measuring the Dzyaloshinskii-Moriya interaction in a weak ferromagnet. *Nature Physics*, **2014**, 10, 202-206. 6.2 111
- 324 Limits on gas impermeability of graphene. *Nature*, **2020**, 579, 229-232 50.4 109
- 323 Moiré patterns as a probe of interplanar interactions for graphene on h-BN. *Physical Review Letters*, **2014**, 113, 135504 7.4 105
- 322 Atomistic simulations of structural and thermodynamic properties of bilayer graphene. *Physical Review B*, **2010**, 81, 3-3 99
- 321 Quantum-Hall activation gaps in graphene. *Physical Review Letters*, **2007**, 99, 206803 7.4 97
- 320 Intrinsic Charge Carrier Mobility in Single-Layer Black Phosphorus. *Physical Review Letters*, **2016**, 116, 246401 7.4 95
- 319 Doping mechanisms in graphene-MoS₂ hybrids. *Applied Physics Letters*, **2013**, 103, 251607 3.4 95
- 318 Strength of correlation effects in the electronic structure of iron. *Physical Review Letters*, **2009**, 103, 267203 7.4 95
- 317 Midgap states in corrugated graphene: Ab initio calculations and effective field theory. *Europhysics Letters*, **2008**, 84, 17003 1.6 93
- 316 Efficient perturbation theory for quantum lattice models. *Physical Review Letters*, **2009**, 102, 206401 7.4 91
- 315 Dual fermion approach to the two-dimensional Hubbard model: Antiferromagnetic fluctuations and Fermi arcs. *Physical Review B*, **2009**, 79, 3-3 88
- 314 Scaling Behavior and Strain Dependence of In-Plane Elastic Properties of Graphene. *Physical Review Letters*, **2016**, 116, 015901 7.4 87
- 313 Macroscopic self-reorientation of interacting two-dimensional crystals. *Nature Communications*, **2016**, 7, 10800 17.4 86
- 312 Unconventional mass enhancement around the Dirac nodal loop in ZrSiS. *Nature Physics*, **2018**, 14, 178-183. 8.2 85
- 311 Probing Single Vacancies in Black Phosphorus at the Atomic Level. *Nano Letters*, **2017**, 17, 3607-3612 11.5 84
- 310 Fermi condensation near van Hove singularities within the Hubbard model on the triangular lattice. *Physical Review Letters*, **2014**, 112, 070403 7.4 84
- 309 Graphene as a prototype crystalline membrane. *Accounts of Chemical Research*, **2013**, 46, 97-105 24.3 84
- 308 Melting of graphene: from two to one dimension. *Journal of Physics Condensed Matter*, **2011**, 23, 202202. 1.8 78

307	Robustness of the Van Hove scenario for high-T(c) superconductors. <i>Physical Review Letters</i> , 2002 , 89, 076401	7.4	76
306	Bending modes, anharmonic effects, and thermal expansion coefficient in single-layer and multilayer graphene. <i>Physical Review B</i> , 2012 , 86,	3.3	75
305	Self-consistent spin-wave theory of layered Heisenberg magnets. <i>Physical Review B</i> , 1999 , 60, 1082-1099	3.3	75
304	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	74
303	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,	3.3	72
302	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	7.4	72
301	Ferromagnetic two-dimensional crystals: Single layers of K ₂ CuF ₄ . <i>Physical Review B</i> , 2013 , 88,	3.3	71
300	Atomic collapse, Lorentz boosts, Klein scattering, and other quantum-relativistic phenomena in graphene. <i>Solid State Communications</i> , 2009 , 149, 1087-1093	1.6	70
299	Magnetism and local distortions near carbon impurity in gamma-iron. <i>Physical Review Letters</i> , 2007 , 99, 247205	7.4	69
298	Singularities of the electronic structure and pre-martensitic anomalies of lattice properties in phases of metals and alloys. <i>Phase Transitions</i> , 1994 , 49, 143-191	1.3	69
297	Effect of Structural Relaxation on the Electronic Structure of Graphene on Hexagonal Boron Nitride. <i>Physical Review Letters</i> , 2015 , 115, 186801	7.4	68
296	Chemical modifications and stability of phosphorene with impurities: a first principles study. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 15209-17	3.6	66
295	Real-space imaging of an orbital Kondo resonance on the Cr(001) surface. <i>Nature</i> , 2002 , 415, 507-9	50.4	66
294	Controlling the Kondo effect in CoCu(n) clusters atom by atom. <i>Physical Review Letters</i> , 2008 , 101, 266803	7.4	65
293	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,	3.3	64
292	Electron pumping in graphene mechanical resonators. <i>Nano Letters</i> , 2012 , 12, 850-4	11.5	64
291	Adsorption of cobalt on graphene: Electron correlation effects from a quantum chemical perspective. <i>Physical Review B</i> , 2012 , 86,	3.3	64
290	Phonon-Assisted Resonant Tunneling of Electrons in Graphene-Boron Nitride Transistors. <i>Physical Review Letters</i> , 2016 , 116, 186603	7.4	63

- 289 sp-Electron magnetic clusters with a large spin in graphene. *ACS Nano*, **2011**, 5, 2440-6 16.7 63
- 288 Ground state and electron-magnon interaction in an itinerant ferromagnet: half-metallic ferromagnets. *Journal of Physics Condensed Matter*, **1990**, 2, 7151-7171 1.8 63
- 287 Temperature-dependent resistivity in bilayer graphene due to flexural phonons. *Physical Review B*, **2011**, 83, 3.3 62
- 286 Effects of van Hove singularities on magnetism and superconductivity in the t₂g Hubbard model: A parquet approach. *Physical Review B*, **2001**, 64, 3.3 62
- 285 Many-spin interactions and spin excitations in Mn₁₂. *Physical Review B*, **1999**, 59, 6919-6926 3.3 62
- 284 Stable and fast semi-implicit integration of the stochastic Landau-Lifshitz equation. *Journal of Physics Condensed Matter*, **2010**, 22, 176001 1.8 61
- 283 Extended Tersoff potential for boron nitride: Energetics and elastic properties of pristine and defective h-BN. *Physical Review B*, **2017**, 96, 3.3 60
- 282 Electron correlations and the minority-spin band gap in half-metallic Heusler alloys. *Physical Review Letters*, **2006**, 96, 137203 7.4 59
- 281 Spin waves in narrow band ferromagnet. *Journal of Physics C: Solid State Physics*, **1985**, 18, 4173-4188 59
- 280 Mild sonochemical exfoliation of bromine-intercalated graphite: a new route towards graphene. *Journal Physics D: Applied Physics*, **2009**, 42, 112003 3 58
- 279 Effective Hamiltonians for Rapidly Driven Many-Body Lattice Systems: Induced Exchange Interactions and Density-Dependent Hoppings. *Physical Review Letters*, **2015**, 115, 075301 7.4 57
- 278 Exchange interactions and frustrated magnetism in single-side hydrogenated and fluorinated graphene. *Physical Review B*, **2013**, 88, 3.3 57
- 277 Beyond extended dynamical mean-field theory: Dual boson approach to the two-dimensional extended Hubbard model. *Physical Review B*, **2014**, 90, 3.3 56
- 276 Giant magnetodrag in graphene at charge neutrality. *Physical Review Letters*, **2013**, 111, 166601 7.4 53
- 275 Two-site Kondo effect in atomic chains. *Physical Review Letters*, **2011**, 107, 106804 7.4 53
- 274 Optical properties of graphene: The Fermi-liquid approach. *Europhysics Letters*, **2008**, 84, 37001 1.6 53
- 273 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, 9962-4 11.5 52
- 272 Orbital magnetism in transition metal systems: The role of local correlation effects. *Europhysics Letters*, **2008**, 82, 37001 1.6 52

271	Parity effects in spin decoherence. <i>Physical Review B</i> , 2004 , 70,	3.3	52
270	Quantum Solid-State Physics. <i>Springer Series in Solid-state Sciences</i> , 1989 ,	0.4	52
269	Dangling bonds and magnetism of grain boundaries in graphene. <i>Physical Review B</i> , 2012 , 85,	3.3	51
268	Quantum oscillations without quantum coherence. <i>Physical Review Letters</i> , 2003 , 90, 210401	7.4	51
267	Ab initio theory of dynamical core-hole screening in graphite from x-ray absorption spectra. <i>Physical Review Letters</i> , 2005 , 94, 167401	7.4	50
266	Importance of correlation effects in hcp iron revealed by a pressure-induced electronic topological transition. <i>Physical Review Letters</i> , 2013 , 110, 117206	7.4	49
265	Dual fermion approach to susceptibility of correlated lattice fermions. <i>Physical Review B</i> , 2008 , 77,	3.3	49
264	Anisotropy of thermal expansion and electronic topological transitions in Zn and Cd under pressure. <i>Physical Review B</i> , 1999 , 59, 4557-4560	3.3	49
263	Microscopic Origin of Heisenberg and Non-Heisenberg Exchange Interactions in Ferromagnetic bcc Fe. <i>Physical Review Letters</i> , 2016 , 116, 217202	7.4	48
262	Dirac points with giant spin-orbit splitting in the electronic structure of two-dimensional transition-metal carbides. <i>Physical Review B</i> , 2015 , 92,	3.3	47
261	Effects of spin-dependent quasiparticle renormalization in Fe, Co, and Ni photoemission spectra: An experimental and theoretical study. <i>Physical Review B</i> , 2012 , 85,	3.3	47
260	Mechanisms of decoherence in weakly anisotropic molecular magnets. <i>Physical Review Letters</i> , 2000 , 84, 3458-61	7.4	47
259	Physical foundations of biological complexity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E8678-E8687	11.5	46
258	Nature of non-magnetic strongly-correlated state in δ -plutonium. <i>Europhysics Letters</i> , 2006 , 74, 479-485	1.6	46
257	Standard model of the rare earths analyzed from the Hubbard I approximation. <i>Physical Review B</i> , 2016 , 94,	3.3	45
256	Magnetic susceptibility, exchange interactions and spin-wave spectra in the local spin density approximation. <i>Journal of Physics Condensed Matter</i> , 2004 , 16, 7439-7446	1.8	45
255	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	3.3	45
254	Quantum transport in Sierpinski carpets. <i>Physical Review B</i> , 2016 , 93,	3.3	44

253	Correlated band theory of spin and orbital contributions to Dzyaloshinskii-Moriya interactions. <i>Physical Review B</i> , 2010 , 82,	3.3	44
252	Superperturbation solver for quantum impurity models. <i>Europhysics Letters</i> , 2009 , 85, 27007	1.6	43
251	Laser-induced topological transitions in phosphorene with inversion symmetry. <i>Physical Review B</i> , 2016 , 93,	3.3	42
250	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	7.4	42
249	Plasmons in strongly correlated systems: spectral weight transfer and renormalized dispersion. <i>Physical Review Letters</i> , 2014 , 113, 246407	7.4	42
248	Magnetic Two-Dimensional Chromium Trihalides: A Theoretical Perspective. <i>Nano Letters</i> , 2020 , 20, 6225-6234	5.6	42
247	Electronic structure of a Mn ₁₂ molecular magnet: Theory and experiment. <i>Physical Review B</i> , 2007 , 75,	3.3	41
246	Role of direct exchange and Dzyaloshinskii-Moriya interactions in magnetic properties of graphene derivatives: C ₂ F and C ₂ H. <i>Physical Review B</i> , 2016 , 94,	3.3	40
245	Theory of plasmonic effects in nonlinear optics: The case of graphene. <i>Physical Review B</i> , 2017 , 95,	3.3	39
244	Scaling picture of magnetism formation in the anomalous f-electron systems: Interplay of the Kondo effect and spin dynamics. <i>Physical Review B</i> , 1997 , 56, 8109-8128	3.3	39
243	Structure, elastic moduli, and thermodynamics of sodium and potassium at ultrahigh pressures. <i>Physical Review B</i> , 2000 , 61, 14420-14424	3.3	39
242	Observing Imperfection in Atomic Interfaces for van der Waals Heterostructures. <i>Nano Letters</i> , 2017 , 17, 5222-5228	11.5	39
241	Many-body orbital paramagnetism in doped graphene sheets. <i>Physical Review Letters</i> , 2010 , 104, 225503	7.4	38
240	Density functional based simulations of proton permeation of graphene and hexagonal boron nitride. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 5813-5817	3.6	37
239	Quantum elasticity of graphene: Thermal expansion coefficient and specific heat. <i>Physical Review B</i> , 2016 , 94,	3.3	37
238	Thermodynamics of quantum crystalline membranes. <i>Physical Review B</i> , 2014 , 89,	3.3	36
237	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		36
236	Inevitability of the emergence and persistence of genetic parasites caused by evolutionary instability of parasite-free states. <i>Biology Direct</i> , 2017 , 12, 31	7.2	35

235	Self-consistent dual boson approach to single-particle and collective excitations in correlated systems. <i>Physical Review B</i> , 2016 , 93,	3.3	35
234	Half-metallic ferromagnetism induced by dynamic electron correlations in VAs. <i>Physical Review Letters</i> , 2006 , 96, 197203	7.4	35
233	A new 2D monolayer BiXene, M ₂ C (M = Mo, Tc, Os). <i>Nanoscale</i> , 2016 , 8, 15753-62	7.7	35
232	Defect-induced ferromagnetism in fullerenes. <i>European Physical Journal B</i> , 2009 , 68, 529-535	1.2	33
231	Large-area, periodic, and tunable intrinsic pseudo-magnetic fields in low-angle twisted bilayer graphene. <i>Nature Communications</i> , 2020 , 11, 371	17.4	32
230	. <i>Journal of Physics Condensed Matter</i> , 1989 , 1, 5319-5335	1.8	32
229	Dodecagonal bilayer graphene quasicrystal and its approximants. <i>Npj Computational Materials</i> , 2019 , 5,	10.9	32
228	Electronic correlations in nodal-line semimetals. <i>Nature Physics</i> , 2020 , 16, 636-641	16.2	31
227	Phonons and electron-phonon coupling in graphene-h-BN heterostructures. <i>Annalen Der Physik</i> , 2014 , 526, 381-386	2.6	31
226	Dynamical and Reversible Control of Topological Spin Textures. <i>Physical Review Letters</i> , 2017 , 118, 157201	7.4	31
225	Lattice expansion in seamless bilayer graphene constrictions at high bias. <i>Nano Letters</i> , 2012 , 12, 4455-911.5	11.5	31
224	Field-effect control of tunneling barrier height by exploiting graphene's low density of states. <i>Journal of Applied Physics</i> , 2013 , 113, 136502	2.5	31
223	Cluster dual fermion approach to nonlocal correlations. <i>JETP Letters</i> , 2008 , 86, 677-682	1.2	31
222	Orbitally-resolved ferromagnetism of monolayer CrI ₃ . <i>2D Materials</i> , 2020 , 7, 025036	5.9	30
221	Generalization properties of neural network approximations to frustrated magnet ground states. <i>Nature Communications</i> , 2020 , 11, 1593	17.4	30
220	First-principles modeling of magnetic excitations in Mn ₁₂ . <i>Physical Review B</i> , 2014 , 89,	3.3	30
219	Disentangling the effects of selection and loss bias on gene dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E5616-E5624	11.5	30
218	Probing of valley polarization in graphene via optical second-harmonic generation. <i>Physical Review B</i> , 2015 , 91,	3.3	30

217	Conductance quantization in graphene nanoribbons: adiabatic approximation. <i>European Physical Journal B</i> , 2007 , 57, 225-228	1.2	30
216	Chirality-Dependent Transmission of Spin Waves through Domain Walls. <i>Physical Review Letters</i> , 2016 , 116, 147204	7.4	29
215	On the description of the antiferromagnetism without anomalous averages. <i>European Physical Journal B</i> , 1986 , 62, 201-205	1.2	29
214	Quantum theory as the most robust description of reproducible experiments. <i>Annals of Physics</i> , 2014 , 347, 45-73	2.5	28
213	Origin of the Canonical Ensemble: Thermalization with Decoherence. <i>Journal of the Physical Society of Japan</i> , 2009 , 78, 094003	1.5	28
212	Anharmonic magnetic deformation of self-assembled molecular nanocapsules. <i>Physical Review Letters</i> , 2007 , 98, 146101	7.4	28
211	Holographic local quench and effective complexity. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	28
210	Band Filling Control of the Dzyaloshinskii-Moriya Interaction in Weakly Ferromagnetic Insulators. <i>Physical Review Letters</i> , 2017 , 119, 167201	7.4	26
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