

Steven G Louie

List of Publications by Year in descending order

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296
papers

60,374
citations

1697

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242
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docs citations

304
times ranked

37495
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy Gaps in Graphene Nanoribbons. <i>Physical Review Letters</i> , 2006, 97, 216803.	2.9	4,396
2	Half-metallic graphene nanoribbons. <i>Nature</i> , 2006, 444, 347-349.	13.7	3,878
3	Electron correlation in semiconductors and insulators: Band gaps and quasiparticle energies. <i>Physical Review B</i> , 1986, 34, 5390-5413.	1.1	3,310
4	Discovery of intrinsic ferromagnetism in two-dimensional van der Waals crystals. <i>Nature</i> , 2017, 546, 265-269.	13.7	3,260
5	Relaxation of Crystals with the Quasi-Newton Method. <i>Journal of Computational Physics</i> , 1997, 131, 233-240.	1.9	2,389
6	Recent Advances in Two-Dimensional Materials beyond Graphene. <i>ACS Nano</i> , 2015, 9, 11509-11539.	7.3	2,069
7	Giant bandgap renormalization and excitonic effects in a monolayer transition metal dichalcogenide semiconductor. <i>Nature Materials</i> , 2014, 13, 1091-1095.	13.3	1,470
8	Electron-hole excitations and optical spectra from first principles. <i>Physical Review B</i> , 2000, 62, 4927-4944.	1.1	1,453
9	Optical Spectrum of MoS_2 : Many-Body Effects and Diversity of Exciton States. <i>Physical Review Letters</i> , 2013, 111, 216805.	2.9	1,275
10	First-Principles Theory of Quasiparticles: Calculation of Band Gaps in Semiconductors and Insulators. <i>Physical Review Letters</i> , 1985, 55, 1418-1421.	2.9	1,208
11	Crossed Nanotube Junctions. <i>Science</i> , 2000, 288, 494-497.	6.0	1,135
12	Quasiparticle Energies and Band Gaps in Graphene Nanoribbons. <i>Physical Review Letters</i> , 2007, 99, 186801.	2.9	1,092
13	Excitonic Effects and Optical Spectra of Single-Walled Carbon Nanotubes. <i>Physical Review Letters</i> , 2004, 92, 077402.	2.9	875
14	Probing excitonic dark states in single-layer tungsten disulphide. <i>Nature</i> , 2014, 513, 214-218.	13.7	835
15	Renormalization of Molecular Electronic Levels at Metal-Molecule Interfaces. <i>Physical Review Letters</i> , 2006, 97, 216405.	2.9	769
16	Electron-Hole Excitations in Semiconductors and Insulators. <i>Physical Review Letters</i> , 1998, 81, 2312-2315.	2.9	768
17	BerkeleyGW: A massively parallel computer package for the calculation of the quasiparticle and optical properties of materials and nanostructures. <i>Computer Physics Communications</i> , 2012, 183, 1269-1289.	3.0	706
18	Electronic mechanism of hardness enhancement in transition-metal carbonitrides. <i>Nature</i> , 1999, 399, 132-134.	13.7	662

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19	Topological defects in graphene: Dislocations and grain boundaries. Physical Review B, 2010, 81, .	1.1	659
20	Spatially resolving edge states of chiral graphene nanoribbons. Nature Physics, 2011, 7, 616-620.	6.5	628
21	Electron-phonon interaction using Wannier functions. Physical Review B, 2007, 76, .	1.1	625
22	Direct observation of the layer-dependent electronic structure in phosphorene. Nature Nanotechnology, 2017, 12, 21-25.	15.6	625
23	Anisotropic behaviours of massless Dirac fermions in graphene under periodic potentials. Nature Physics, 2008, 4, 213-217.	6.5	609
24	Mechanically controlled binary conductance switching of a single-molecule junction. Nature Nanotechnology, 2009, 4, 230-234.	15.6	609
25	Excitonic Effects on the Optical Response of Graphene and Bilayer Graphene. Physical Review Letters, 2009, 103, 186802.	2.9	604
26	Fully collapsed carbon nanotubes. Nature, 1995, 377, 135-138.	13.7	466
27	First direct observation of Dirac fermions in graphite. Nature Physics, 2006, 2, 595-599.	6.5	466
28	Topological band engineering of graphene nanoribbons. Nature, 2018, 560, 204-208.	13.7	452
29	Amine-Gold Linked Single-Molecule Circuits: Experiment and Theory. Nano Letters, 2007, 7, 3477-3482.	4.5	447
30	Spin Polarization and Transport of Surface States in the Topological Insulators Bi_2Se_3 and Bi_2Te_3 . Physical Review Letters, 2010, 105, 266806.	2.9	424
31	Molecular bandgap engineering of bottom-up synthesized graphene nanoribbon heterojunctions. Nature Nanotechnology, 2015, 10, 156-160.	15.6	414
32	Disorder, Pseudospins, and Backscattering in Carbon Nanotubes. Physical Review Letters, 1999, 83, 5098-5101.	2.9	408
33	New Generation of Massless Dirac Fermions in Graphene under External Periodic Potentials. Physical Review Letters, 2008, 101, 126804.	2.9	370
34	Tunable Magnetism and Half-Metallicity in Hole-Doped Monolayer GaSe. Physical Review Letters, 2015, 114, 236602.	2.9	350
35	Broken symmetry and pseudogaps in ropes of carbon nanotubes. Nature, 1998, 391, 466-468.	13.7	348
36	Excitonic Effects and the Optical Absorption Spectrum of Hydrogenated Si Clusters. Physical Review Letters, 1998, 80, 3320-3323.	2.9	341

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37	Ab initio static dielectric matrices from the density-functional approach. I. Formulation and application to semiconductors and insulators. <i>Physical Review B</i> , 1987, 35, 5585-5601.	1.1	338
38	Calcium-Decorated Graphene-Based Nanostructures for Hydrogen Storage. <i>Nano Letters</i> , 2010, 10, 793-798.	4.5	331
39	EPW: A program for calculating the electron-phonon coupling using maximally localized Wannier functions. <i>Computer Physics Communications</i> , 2010, 181, 2140-2148.	3.0	324
40	First-principles calculation of the superconducting transition in MgB ₂ within the anisotropic Eliashberg formalism. <i>Physical Review B</i> , 2002, 66, .	1.1	323
41	Theory and computation of hot carriers generated by surface plasmon polaritons in noble metals. <i>Nature Communications</i> , 2015, 6, 7044.	5.8	317
42	Magnetic brightening and control of dark excitons in monolayer WSe ₂ . <i>Nature Nanotechnology</i> , 2017, 12, 883-888.	15.6	315
43	Theory and Ab Initio Calculation of Radiative Lifetime of Excitons in Semiconducting Carbon Nanotubes. <i>Physical Review Letters</i> , 2005, 95, 247402.	2.9	295
44	Screening and many-body effects in two-dimensional crystals: Monolayer MoS ₂ . <i>Physical Review B</i> , 2016, 93, .	12.9	290
45	Vacancy Hardening and Softening in Transition Metal Carbides and Nitrides. <i>Physical Review Letters</i> , 2001, 86, 3348-3351.	2.9	284
46	GW ₁₀₀ : Benchmarking G ₀ W ₀ for Molecular Systems. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 5665-5687.	2.3	280
47	Ab initio calculation of the electronic and optical properties of solid pentacene. <i>Physical Review B</i> , 2003, 67, .	1.1	276
48	Excitonic Effects in the Optical Spectra of Graphene Nanoribbons. <i>Nano Letters</i> , 2007, 7, 3112-3115.	4.5	254
49	Electron Beam Supercollimation in Graphene Superlattices. <i>Nano Letters</i> , 2008, 8, 2920-2924.	4.5	253
50	Electron-Phonon Renormalization of the Direct Band Gap of Diamond. <i>Physical Review Letters</i> , 2010, 105, 265501.	2.9	241
51	Topological Phases in Graphene Nanoribbons: Junction States, Spin Centers, and Quantum Spin Chains. <i>Physical Review Letters</i> , 2017, 119, 076401.	2.9	235
52	Gate-controlled ionization and screening of cobalt adatoms on a graphene surface. <i>Nature Physics</i> , 2011, 7, 43-47.	6.5	233
53	Observing Atomic Collapse Resonances in Artificial Nuclei on Graphene. <i>Science</i> , 2013, 340, 734-737.	6.0	223
54	Site-Specific Substitutional Boron Doping of Semiconducting Armchair Graphene Nanoribbons. <i>Journal of the American Chemical Society</i> , 2015, 137, 8872-8875.	6.6	213

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55	Quasiparticle Band Gap of ZnO: High Accuracy from the Conventional $G > 0$ Physical Review Letters, 2010, 105, 146401.	2.9	212
56	Ab Initio Study of Hot Carriers in the First Picosecond after Sunlight Absorption in Silicon. Physical Review Letters, 2014, 112, 257402.	2.9	203
57	High thermoelectric power factor in two-dimensional crystals of MoS_2 Physical Review B, 2017, 95, .	1.1	201
58	Many-body interactions in quasi-freestanding graphene. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11365-11369.	3.3	200
59	Nonanalyticity, Valley Quantum Phases, and Lightlike Exciton Dispersion in Monolayer Transition Metal Dichalcogenides: Theory and First-Principles Calculations. Physical Review Letters, 2015, 115, 176801.	2.9	196
60	Identifying substitutional oxygen as a prolific point defect in monolayer transition metal dichalcogenides. Nature Communications, 2019, 10, 3382.	5.8	196
61	Ab Initio Photoabsorption Spectra and Structures of Small Semiconductor and Metal Clusters. Physical Review Letters, 1996, 77, 247-250.	2.9	193
62	Excitons and Optical Spectrum of the Si(111) $\sqrt{2}\sqrt{2}-1$ Surface. Physical Review Letters, 1999, 83, 856-859.	2.9	191
63	Inversion symmetry and bulk Rashba effect in methylammonium lead iodide perovskite single crystals. Nature Communications, 2018, 9, 1829.	5.8	189
64	Velocity Renormalization and Carrier Lifetime in Graphene from the Electron-Phonon Interaction. Physical Review Letters, 2007, 99, 086804.	2.9	183
65	Diameter and chirality dependence of exciton properties in carbon nanotubes. Physical Review B, 2006, 74, .	1.1	179
66	Photoelectron spin-flipping and texture manipulation in a topological insulator. Nature Physics, 2013, 9, 293-298.	6.5	176
67	High Accuracy Many-Body Computational Approaches for Excitations in Molecules. Physical Review Letters, 2001, 86, 472-475.	2.9	169
68	Si-O-Si bond-angle distribution in vitreous silica from first-principles ^{29}Si NMR analysis. Physical Review B, 2000, 62, R4786-R4789.	1.1	167
69	Atomically precise graphene nanoribbon heterojunctions from a single molecular precursor. Nature Nanotechnology, 2017, 12, 1077-1082.	15.6	162
70	Three-Dimensional Spirals of Atomic Layered MoS ₂ . Nano Letters, 2014, 14, 6418-6423.	4.5	161
71	Self-consistent pseudopotential method for localized configurations: Molecules. Physical Review B, 1975, 12, 5575-5579.	1.1	160
72	Negative Differential Resistance in Carbon Atomic Wire-Carbon Nanotube Junctions. Nano Letters, 2008, 8, 2900-2905.	4.5	160

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73	Structural forms of cubic BC ₂ N. <i>Physical Review B</i> , 2001, 64, .	1.1	159
74	Small phonon contribution to the photoemission kink in the copper oxide superconductors. <i>Nature</i> , 2008, 452, 975-978.	13.7	157
75	Electron-Phonon Interactions in Graphene, Bilayer Graphene, and Graphite. <i>Nano Letters</i> , 2008, 8, 4229-4233.	4.5	156
76	Environmental Screening Effects in 2D Materials: Renormalization of the Bandgap, Electronic Structure, and Optical Spectra of Few-Layer Black Phosphorus. <i>Nano Letters</i> , 2017, 17, 4706-4712.	4.5	155
77	Making Massless Dirac Fermions from a Patterned Two-Dimensional Electron Gas. <i>Nano Letters</i> , 2009, 9, 1793-1797.	4.5	151
78	Coulomb-hole summations and energies for G calculations with limited number of empty orbitals: A modified static remainder approach. <i>Physical Review B</i> , 2013, 87, .	1.1	149
79	Calcium-decorated carbon nanotubes for high-capacity hydrogen storage: First-principles calculations. <i>Physical Review B</i> , 2009, 80, .	1.1	148
80	Phonon-Assisted Optical Absorption in Silicon from First Principles. <i>Physical Review Letters</i> , 2012, 108, 167402.	2.9	143
81	Landau Levels and Quantum Hall Effect in Graphene Superlattices. <i>Physical Review Letters</i> , 2009, 103, 046808.	2.9	137
82	Excitonic effects in the optical properties of a SiC sheet and nanotubes. <i>Physical Review B</i> , 2011, 84, .	1.1	136
83	Probing the Role of Interlayer Coupling and Coulomb Interactions on Electronic Structure in Few-Layer MoSe ₂ Nanostructures. <i>Nano Letters</i> , 2015, 15, 2594-2599.	4.5	136
84	Low Energy Properties of (n,n) Carbon Nanotubes. <i>Physical Review Letters</i> , 1997, 78, 4245-4248.	2.9	129
85	Structural and electronic properties of n-doped and p-doped SrTiO ₃ . <i>Physical Review B</i> , 2004, 70, .	1.1	127
86	Inducing metallicity in graphene nanoribbons via zero-mode superlattices. <i>Science</i> , 2020, 369, 1597-1603.	6.0	127
87	Tunable excitons in bilayer graphene. <i>Science</i> , 2017, 358, 907-910.	6.0	126
88	Strong correlations and orbital texture in single-layer 1T-TaSe ₂ . <i>Nature Physics</i> , 2020, 16, 218-224.	6.5	126
89	Mechanical Instability and Ideal Shear Strength of Transition Metal Carbides and Nitrides. <i>Physical Review Letters</i> , 2001, 87, 075503.	2.9	122
90	GW method with the self-consistent Sternheimer equation. <i>Physical Review B</i> , 2010, 81, .	1.1	122

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91	Large Spin-Orbit Splitting of Deep In-Gap Defect States of Engineered Sulfur Vacancies in Monolayer <math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mrow><msub><mrow><mi>WS</mi></mrow></msub></mrow></math> Physical Review Letters, 2019, 123, 076801.	2.9	120
92	Temperature Dependence of the Band Gap of Semiconducting Carbon Nanotubes. Physical Review Letters, 2005, 94, 036801.	2.9	119
93	Bottom-Up Synthesis of $N = 13$ Sulfur-Doped Graphene Nanoribbons. Journal of Physical Chemistry C, 2016, 120, 2684-2687.	1.5	119
94	Quasiparticle effects in the bulk and surface-state bands of Bi ₂ Se ₃ and Bi ₃ Se ₄ <math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><msub><mrow><mi>Bi</mi></mrow></msub></math> <math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><msub><mrow><mi>Se</mi></mrow></msub></math> <math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><msub><mrow><mi>Bi</mi></mrow></msub></math> <math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><msub><mrow><mi>Se</mi></mrow></msub></math>	1.1	118
95	Imaging moiré flat bands in three-dimensional reconstructed WSe ₂ /WS ₂ superlattices. Nature Materials, 2021, 20, 945-950.	13.3	118
96	Self-Consistent Pseudopotential Calculation for a Metal-Semiconductor Interface. Physical Review Letters, 1975, 35, 866-869.	2.9	116
97	Self-Consistent Pseudopotential Calculations on Si(111) Unreconstructed and (2 \times 1) Reconstructed Surfaces. Physical Review Letters, 1975, 34, 1385-1388.	2.9	116
98	Theory of magnetic edge states in chiral graphene nanoribbons. Physical Review B, 2011, 84, .	1.1	113
99	Optimization of metal dispersion in doped graphitic materials for hydrogen storage. Physical Review B, 2008, 78, .	1.1	111
100	Computational design of direct-bandgap semiconductors that lattice-match silicon. Nature, 2001, 409, 69-71.	13.7	110
101	NMR Chemical Shifts of Ice and Liquid Water: The Effects of Condensation. Journal of the American Chemical Society, 2000, 122, 123-129.	6.6	109
102	Defect-Induced Modification of Low-Lying Excitons and Valley Selectivity in Monolayer Transition Metal Dichalcogenides. Physical Review Letters, 2018, 121, 167402.	2.9	109
103	Observation of Carrier-Density-Dependent Many-Body Effects in Graphene via Tunneling Spectroscopy. Physical Review Letters, 2010, 104, 036805.	2.9	106
104	Bound Excitons in Metallic Single-Walled Carbon Nanotubes. Nano Letters, 2007, 7, 1626-1630.	4.5	105
105	Ab initio study of hot electrons in GaAs. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5291-5296.	3.3	104
106	Quasiparticle excitation spectrum for nearly-free-electron metals. Physical Review B, 1989, 39, 8198-8208.	1.1	103
107	Ab initio study of silicon in the R8 phase. Physical Review B, 1997, 56, 6662-6668.	1.1	103
108	Theory of sodium ordering in Na _x CoO ₂ . Physical Review B, 2005, 71, .	1.1	102

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109	Angle-Resolved Photoemission Spectra of Graphene from First-Principles Calculations. Nano Letters, 2009, 9, 4234-4239.	4.5	102
110	Physical origin of giant excitonic and magneto-optical responses in two-dimensional ferromagnetic insulators. Nature Communications, 2019, 10, 2371.	5.8	101
111	Quasiparticle band structure of ZnS and ZnSe. Physical Review B, 2002, 66, .	1.1	99
112	Structural Deformation and Intertube Conductance of Crossed Carbon Nanotube Junctions. Physical Review Letters, 2001, 86, 688-691.	2.9	98
113	Graphene Dirac fermions in one-dimensional inhomogeneous field profiles: Transforming magnetic to electric field. Physical Review B, 2010, 81, .	1.1	98
114	Physical Origin of Satellites in Photoemission of Doped Graphene: An Ab Initio GW Plus Cumulant Study. Physical Review Letters, 2013, 110, 146801.	2.9	97
115	A dielectric-defined lateral heterojunction in a monolayer semiconductor. Nature Electronics, 2019, 2, 60-65.	13.1	95
116	Klein tunneling and supercollimation of pseudospin-1 electromagnetic waves. Physical Review B, 2016, 93, .	1.1	93
117	Direct measurement of quantum phases in graphene via photoemission spectroscopy. Physical Review B, 2011, 84, .	1.1	91
118	Spin splitting of dopant edge state in magnetic zigzag graphene nanoribbons. Nature, 2021, 600, 647-652.	13.7	91
119	Spin Polarization of Photoelectrons from Topological Insulators. Physical Review Letters, 2012, 109, 097601.	2.9	89
120	Excitons and Optical Properties of α -Quartz. Physical Review Letters, 2000, 85, 2613-2616.	2.9	88
121	Hydrostatic pressure effects on the structural and electronic properties of carbon nanotubes. Physica Status Solidi (B): Basic Research, 2004, 241, 3352-3359.	0.7	88
122	Tuning charge and correlation effects for a single molecule on a graphene device. Nature Communications, 2016, 7, 13553.	5.8	82
123	Tunable Excitons in Biased Bilayer Graphene. Nano Letters, 2010, 10, 426-431.	4.5	81
124	First-principles calculation of oxygen vacancies in rutile TiO_2 . Physical Review B, 2014, 89, .	1.1	80
125	Nonuniform sampling schemes of the Brillouin zone for many-electron perturbation-theory calculations in reduced dimensionality. Physical Review B, 2017, 95, .	1.1	78
126	Doping effects on the electronic and structural properties of CoO_2 : An LSDA+U study. Physical Review B, 2004, 70, .	1.1	77

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127	Structural and electronic properties of carbon in hybrid diamond-graphite structures. Physical Review B, 2005, 72, .	1.1	77
128	Bottom-up Assembly of Nanoporous Graphene with Emergent Electronic States. Journal of the American Chemical Society, 2020, 142, 13507-13514.	6.6	77
129	Hierarchical On-Surface Synthesis of Graphene Nanoribbon Heterojunctions. ACS Nano, 2018, 12, 2193-2200.	7.3	75
130	Ultrasensitive tunability of the direct bandgap of 2D InSe flakes via strain engineering. 2D Materials, 2018, 5, 021002.	2.0	75
131	Theory of semiconductor surface states and metal-semiconductor interfaces. Journal of Vacuum Science and Technology, 1976, 13, 790-797.	1.9	74
132	Tuning Many-Body Interactions in Graphene: The Effects of Doping on Excitons and Carrier Lifetimes. Physical Review Letters, 2014, 112, .	2.9	74
133	Evidence for quantum spin liquid behaviour in single-layer 1T-TaSe ₂ from scanning tunnelling microscopy. Nature Physics, 2021, 17, 1154-1161.	6.5	74
134	Large electron-phonon interactions from FeSe phonons in a monolayer. New Journal of Physics, 2015, 17, 073027.	1.2	73
135	Direct observation of Klein tunneling in phononic crystals. Science, 2020, 370, 1447-1450.	6.0	73
136	First-Principles Study of Electron Linewidths in Graphene. Physical Review Letters, 2009, 102, 076803.	2.9	72
137	Gate Switchable Transport and Optical Anisotropy in 90° Twisted Bilayer Black Phosphorus. Nano Letters, 2016, 16, 5542-5546.	4.5	71
138	Spectral functions of the uniform electron gas via coupled-cluster theory and comparison to the related approximations. Physical Review B, 2016, 93, .	1.1	70
139	Method: Correlation-Enhanced Interactions and Superconductivity in	2.9	70
140	Evaluation of quasiparticle energies for semiconductors without inversion symmetry. Physical Review B, 1989, 40, 3162-3168.	1.1	69
141	Systematic determination of absolute absorption cross-section of individual carbon nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7564-7569.	3.3	69
142	Exchange-driven intravalley mixing of excitons in monolayer transition metal dichalcogenides. Nature Physics, 2019, 15, 228-232.	6.5	68
143	Phonon Softening and Superconductivity in Tellurium under Pressure. Physical Review Letters, 1996, 77, 1151-1154.	2.9	67
144	Hypothetical hard structures of carbon with cubic symmetry. Physical Review B, 2006, 74, .	1.1	66

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145	Ab initio NMR Chemical Shift of Diamond, Chemical-Vapor-Deposited Diamond, and Amorphous Carbon. Physical Review Letters, 1997, 79, 2340-2343.	2.9	65
146	NMR Chemical Shifts in Hard Carbon Nitride Compounds. Physical Review Letters, 1998, 80, 3388-3391.	2.9	65
147	Quasiparticle energy of semiconducting electrons in ZnS: Combined LDA+U and GW approach. Physical Review B, 2006, 74, .	1.1	65
148	Enhanced electron-hole interaction and optical absorption in a silicon nanowire. Physical Review B, 2007, 75, .	1.1	65
149	Predominance of non-adiabatic effects in zero-point renormalization of the electronic band gap. Npj Computational Materials, 2020, 6, .	3.5	65
150	Electron-Hole Interaction in Carbon Nanotubes: Novel Screening and Exciton Excitation Spectra. Nano Letters, 2009, 9, 1330-1334.	4.5	64
151	Orbitally Matched Edge-Doping in Graphene Nanoribbons. Journal of the American Chemical Society, 2018, 140, 807-813.	6.6	64
152	Anomalous Quasiparticle Lifetime in Graphite: Band Structure Effects. Physical Review Letters, 2001, 87, 246405.	2.9	62
153	Comparing time-dependent density functional theory with many-body perturbation theory for semiconductors: Screened range-separated hybrids and the G_0W_0 plus Bethe-Salpeter approach. Physical Review Materials, 2019, 3, .	0.9	61
154	Discovering and understanding materials through computation. Nature Materials, 2021, 20, 728-735.	13.3	60
155	Coexistence of sharp quasiparticle dispersions and disorder features in graphite. Physical Review B, 2005, 71, .	1.1	59
156	Quasiparticle electronic structure of bismuth telluride in the G_0W_0 approximation. Physical Review B, 2010, 82, .	1.1	59
157	Coupling of Nonlocal Potentials to Electromagnetic Fields. Physical Review Letters, 2001, 87, 087402.	2.9	56
158	Ab initio electronic relaxation times and transport in noble metals. Physical Review B, 2016, 94, .	1.1	56
159	Origins of Singlet Fission in Solid Pentacene from an <i>ab initio</i> Green's Function Approach. Physical Review Letters, 2017, 119, 267401.	2.9	55
160	Topological Phases in Cove-Edged and Chevron Graphene Nanoribbons: Geometric Structures, Z_2 Invariants, and Junction States. Nano Letters, 2018, 18, 7247-7253.	4.5	55
161	Negative Differential Resistance in Transport through Organic Molecules on Silicon. Physical Review Letters, 2007, 98, 066807.	2.9	54
162	Quasiparticle Excitations and Charge Transition Levels of Oxygen Vacancies in Hafnia. Physical Review Letters, 2011, 107, 216803.	2.9	54

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163	First-principles scattering-state approach for nonlinear electrical transport in nanostructures. Physical Review B, 2007, 76, .	1.1	53
164	Mechanism for optical initialization of spin in NV $\langle\text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle\text{mml:msup}>\langle\text{mml:mrow}/>\langle\text{mml:mo}>\hat{a}^{\wedge}\langle\text{mml:mo}>\langle\text{mml:msup}>\langle\text{mml:math}>\text{center in diamond. Physical Review B, 2012, 86, .$	1.1	53
165	Excitation spectra of aromatic molecules within a real-space $\langle\text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML">\langle\text{mml:mrow}>\langle\text{mml:mi}>G\langle\text{mml:mi}>\langle\text{mml:mi}>W\langle\text{mml:mi}>\langle\text{mml:mrow}>\langle\text{mml:msub}>\langle\text{mml:math}>\text{formalism: Role of self-consistency and vertex corrections. Physical Review B, 2016, 94, .$	5.8	53
166	Universal slow plasmons and giant field enhancement in atomically thin quasi-two-dimensional metals. Nature Communications, 2020, 11, 1013.	5.8	53
167	Generation of Anisotropic Massless Dirac Fermions and Asymmetric Klein Tunneling in Few-Layer Black Phosphorus Superlattices. Nano Letters, 2017, 17, 2280-2286.	4.5	52
168	Unifying Optical Selection Rules for Excitons in Two Dimensions: Band Topology and Winding Numbers. Physical Review Letters, 2018, 120, 087402.	2.9	52
169	Rational Passivation of Sulfur Vacancy Defects in Two-Dimensional Transition Metal Dichalcogenides. ACS Nano, 2021, 15, 8780-8789.	7.3	52
170	GW approach to Anderson model out of equilibrium: Coulomb blockade and false hysteresis in the \hat{V} characteristics. Physical Review B, 2009, 79, .	1.1	51
171	Van Hove singularity and apparent anisotropy in the electron-phonon interaction in graphene. Physical Review B, 2008, 77, .	1.1	50
172	Formation and Dynamics of Electron-Irradiation-Induced Defects in Hexagonal Boron Nitride at Elevated Temperatures. Nano Letters, 2016, 16, 7142-7147.	4.5	49
173	Selection rules for one- and two-photon absorption by excitons in carbon nanotubes. Physical Review B, 2006, 73, .	1.1	48
174	Ab initioGWquasiparticle energies of small sodium clusters by an all-electron mixed-basis approach. Physical Review B, 2001, 63, .	1.1	46
175	Ab initio GWquasiparticle calculation of small alkali-metal clusters. Physical Review B, 2002, 65, .	1.1	46
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