FranÃ§ois M Peeters

List of Publications by Year
in descending order

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404 papers	19,666 citations	11608 70 h-index	16605 123 g-index
407 all docs	407 docs citations	407 times ranked	16684 citing authors

#	Article	IF	Citations
1	Monolayer behaviour in bulk ReS2 due to electronic and vibrational decoupling. Nature Communications, 2014, 5, 3252.	5.8	906
2	From graphene to graphite: Electronic structure around theKpoint. Physical Review B, 2006, 74, .	1.1	849
3	Bandgap engineering of two-dimensional semiconductor materials. Npj 2D Materials and Applications, 2020, 4, .	3.9	528
4	Anomalous Raman spectra and thickness-dependent electronic properties of WSe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 87, .	1.1	408
5	First-principles investigation of graphene fluoride and graphane. Physical Review B, 2010, 82, .	1.1	397
6	Phase transitions in individual sub-micrometre superconductors. Nature, 1997, 390, 259-262.	13.7	388
7	Tuning the Optical, Magnetic, and Electrical Properties of ReSe₂ by Nanoscale Strain Engineering. Nano Letters, 2015, 15, 1660-1666.	4.5	363
8	Graphene: A perfect nanoballoon. Applied Physics Letters, 2008, 93, .	1.5	346
9	Tuning of energy levels and optical properties of graphene quantum dots. Physical Review B, 2008, 77, .	1.1	303
10	Electrically controlled water permeation through graphene oxide membranes. Nature, 2018, 559, 236-240.	13.7	263
11	Valley-Dependent Brewster Angles and Goos-HÃnchen Effect in Strained Graphene. Physical Review Letters, 2011, 106, 176802.	2.9	253
12	Mo₂C as a high capacity anode material: a first-principles study. Journal of Materials Chemistry A, 2016, 4, 6029-6035.	5.2	249
13	Confined states and direction-dependent transmission in graphene quantum wells. Physical Review B, 2006, 74, .	1.1	227
14	Extra Dirac points in the energy spectrum for superlattices on single-layer graphene. Physical Review B, 2010, 81, .	1.1	225
15	Energy levels of two- and three-dimensional polarons in a magnetic field. Physical Review B, 1985, 31, 3689-3695.	1.1	205
16	Direction-dependent tunneling through nanostructured magnetic barriers in graphene. Physical Review B, 2008, 77, .	1.1	203
17	Phonon softening and direct to indirect band gap crossover in strained single-layer MoSe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 87, .	1.1	200
18	Dirac and Klein-Gordon particles in one-dimensional periodic potentials. Physical Review B, 2008, 77, .	1.1	199

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19	Commensurability Effects in Viscosity of Nanoconfined Water. ACS Nano, 2016, 10, 3685-3692.	7.3	198
20	MXenes/graphene heterostructures for Li battery applications: a first principles study. Journal of Materials Chemistry A, 2018, 6, 2337-2345.	5.2	173
21	Tunable Quantum Dots in Bilayer Graphene. Nano Letters, 2007, 7, 946-949.	4.5	169
22	Environmental Changes in MoTe₂ Excitonic Dynamics by Defects-Activated Molecular Interaction. ACS Nano, 2015, 9, 5326-5332.	7.3	166
23	Quasibound states of quantum dots in single and bilayer graphene. Physical Review B, 2008, 77, .	1.1	164
24	Promising Piezoelectric Performance of Single Layer Transition-Metal Dichalcogenides and Dioxides. Journal of Physical Chemistry C, 2015, 119, 23231-23237.	1.5	164
25	Mechanical and thermal properties of h-MX₂ (Mâ€‰=â€‰Cr, Mo, W; Xâ€‰=â€‰O, S, Se, Te) monolayers: A comparative study. Applied Physics Letters, 2014, 104, 203110.	1.5	157
26	Quantum properties and applications of 2D Janus crystals and their superlattices. Applied Physics Reviews, 2020, 7, .	5.5	156
27	Graphene-based resonant-tunneling structures. Applied Physics Letters, 2007, 90, 132122.	1.5	153
28	Significant effect of stacking on the electronic and optical properties of few-layer black phosphorus. Physical Review B, 2015, 92, .	1.1	152
29	Formation and stability of point defects in monolayer rhenium disulfide. Physical Review B, 2014, 89, .	1.1	151
30	Energy levels of triangular and hexagonal graphene quantum dots: A comparative study between the tight-binding and Dirac equation approach. Physical Review B, 2011, 84, .	1.1	148
31	Thermal properties of black and blue phosphorenes from a first-principles quasiharmonic approach. Physical Review B, 2015, 92, .	1.1	140
32	Ground-state energy of a polaron inndimensions. Physical Review B, 1986, 33, 3926-3934.	1.1	137
33	Normal and Dirac fermions in graphene multilayers: Tight-binding description of the electronic structure. Physical Review B, 2007, 75, .	1.1	137
34	Landau levels and oscillator strength in a biased bilayer of graphene. Physical Review B, 2007, 76, .	1.1	125
35	Mechanical properties of monolayer GaS and GaSe crystals. Physical Review B, 2016, 94, .	1.1	122
36	Hexagonal AlN: Dimensional-crossover-driven band-gap transition. Physical Review B, 2015, 91, .	1.1	121

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37	Electronic, vibrational, elastic, and piezoelectric properties of monolayer Janus MoSTe phases: A first-principles study. Physical Review B, 2019, 100, .	1.1	120
38	Hall magnetometer in the ballistic regime. Applied Physics Letters, 1998, 72, 572-574.	1.5	118
39	Evidence of flat bands and correlated states in buckled graphene superlattices. Nature, 2020, 584, 215-220.	13.7	118
40	Realization of a tunable artificial atom at a supercritically charged vacancy in graphene. Nature Physics, 2016, 12, 545-549.	6.5	110
41	Wave-packet dynamics and valley filter in strained graphene. Physical Review B, 2010, 82, .	1.1	108
42	Stone-Wales defects in silicene: Formation, stability, and reactivity of defect sites. Physical Review B, 2013, 88, .	1.1	108
43	Stable half-metallic monolayers of FeCl2. Applied Physics Letters, 2015, 106, .	1.5	108
44	Direct Coulomb and phonon-mediated coupling between spatially separated electron gases. Physical Review Letters, 1992, 68, 2516-2519.	2.9	107
45	Effect of the confining potential on the magnetoâ€optical spectrum of a quantum dot. Journal of Applied Physics, 1990, 68, 3435-3438.	1.1	105
46	Dirac electrons in a Kronig-Penney potential: Dispersion relation and transmission periodic in the strength of the barriers. Physical Review B, 2009, 80, .	1.1	101
47	Mechanical properties of monolayer sulphides: a comparative study between MoS₂, HfS₂ and TiS₃. Physical Chemistry Chemical Physics, 2015, 17, 27742-27749.	1.3	99
48	Spin-Valley Filtering in Strained Graphene Structures with Artificially Induced Carrier Mass and Spin-Orbit Coupling. Physical Review Letters, 2014, 113, 046601.	2.9	98
49	Wavevector filtering through single-layer and bilayer graphene with magnetic barrier structures. Applied Physics Letters, 2008, 93, 242103.	1.5	93
50	Statistical properties of polarons in a magnetic field. I. Analytic results. Physical Review B, 1982, 25, 7281-7301.	1.1	92
51	Anisotropic exciton Stark shift in black phosphorus. Physical Review B, 2015, 91, .	1.1	92
52	Extended Ginzburg-Landau Formalism for Two-Band Superconductors. Physical Review Letters, 2011, 106, 047005.	2.9	91
53	Pseudo magnetic field in strained graphene: Revisited. Solid State Communications, 2013, 175-176, 76-82.	0.9	90
54	Strain-induced topological phase transition in phosphorene and in phosphorene nanoribbons. Physical Review B, 2016, 94, .	1.1	90

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55	Minigaps and Novel Giant Negative Magnetoresistance in InAs/GaSb Semimetallic Superlattices. Physical Review Letters, 1997, 79, 3034-3037.	2.9	89
56	Klein tunneling in single and multiple barriers in graphene. Semiconductor Science and Technology, 2010, 25, 033002.	1.0	89
57	Alkali Metal Intercalation in MXene/Graphene Heterostructures: A New Platform for Ion Battery Applications. Journal of Physical Chemistry Letters, 2019, 10, 727-734.	2.1	88
58	Efficient Numerical Approach to Inhomogeneous Superconductivity: The Chebyshev-Bogoliubovâ€“de Gennes Method. Physical Review Letters, 2010, 105, 167006.	2.9	87
59	Thermomechanical properties of a single hexagonal boron nitride sheet. Physical Review B, 2013, 87, .	1.1	87
60	Oscillations of the superconducting temperature induced by quantum well states in thin metallic films: Numerical solution of the Bogoliubovâ€“de Gennes equations. Physical Review B, 2007, 75, .	1.1	84
61	Electronic and optical properties of a circular graphene quantum dot in a magnetic field: Influence of the boundary conditions. Physical Review B, 2011, 84, .	1.1	84
62	Realization of free-standing silicene using bilayer graphene. Applied Physics Letters, 2013, 103, .	1.5	80
63	Bilayer graphene with single and multiple electrostatic barriers: Band structure and transmission. Physical Review B, 2009, 79, .	1.1	79
64	Tuning a circular pâ€“n junction in graphene from quantum confinement to optical guiding. Nature Nanotechnology, 2017, 12, 1045-1049.	15.6	79
65	C₃N Monolayer: Exploring the Emerging of Novel Electronic and Magnetic Properties with Adatom Adsorption, Functionalizations, Electric Field, Charging, and Strain. Journal of Physical Chemistry C, 2019, 123, 12485-12499.	1.5	78
66	Nanoribbons: From fundamentals to state-of-the-art applications. Applied Physics Reviews, 2016, 3, .	5.5	77
67	Anisotropic electronic, mechanical, and optical properties of monolayer WTe2. Journal of Applied Physics, 2016, 119, .	1.1	76
68	Tuning Carrier Confinement in the MoS₂/WS₂ Lateral Heterostructure. Journal of Physical Chemistry C, 2015, 119, 9580-9586.	1.5	74
69	Composite super-moirÃ© lattices in double-aligned graphene heterostructures. Science Advances, 2019, 5, eaay8897.	4.7	74
70	Janus two-dimensional transition metal dichalcogenide oxides: First-principles investigation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">W</mml:mi><mml:mi>X</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:math> monolayers with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>X</mml:mi><mml:mo>=</mml:mo><mml:mi mathvariant="normal">S</mml:mi></mml:math>, Se, and Te. Physical Review B, 2021, 103, .	1.1	73
71	Single-layer and bilayer graphene superlattices: collimation, additional Dirac points and Dirac lines. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 5499-5524.	1.6	71
72	Two-dimensional carbon nitride (2DCN) nanosheets: Tuning of novel electronic and magnetic properties by hydrogenation, atom substitution and defect engineering. Journal of Applied Physics, 2019, 126, .	1.1	70

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73	Unusual lattice vibration characteristics in whiskers of the pseudo-one-dimensional titanium trisulfide TiS3. Nature Communications, 2016, 7, 12952.	5.8	69
74	Vibrational properties of graphene fluoride and graphane. Applied Physics Letters, 2011, 98, .	1.5	68
75	Tunable spin and charge transport in silicene nanoribbons. Physical Review B, 2015, 92, .	1.1	67
76	Optical Aharonov-Bohm effect in stacked type-II quantum dots. Physical Review B, 2007, 76, .	1.1	66
77	Electron tunneling through double magnetic barriers on the surface of a topological insulator. Physical Review B, 2010, 82, .	1.1	66
78	Ginzburg-Landau theory for multiband superconductors: Microscopic derivation. Physical Review B, 2013, 87, .	1.1	66
79	Influence of vacancy defects on the thermal stability of silicene: a reactive molecular dynamics study. RSC Advances, 2014, 4, 1133-1137.	1.7	66
80	Graphene on boron-nitride: MoirÃ© pattern in the van der Waals energy. Applied Physics Letters, 2014, 104, .	1.5	66
81	Dependence of the shape of graphene nanobubbles on trapped substance. Nature Communications, 2017, 8, 15844.	5.8	65
82	Strong dichroic emission in the pseudo one dimensional material ZrS₃. Nanoscale, 2016, 8, 16259-16265.	2.8	63
83	Doping of rhenium disulfide monolayers: a systematic first principles study. Physical Chemistry Chemical Physics, 2014, 16, 16771-16779.	1.3	62
84	Superconducting diode effect via conformal-mapped nanoholes. Nature Communications, 2021, 12, 2703.	5.8	61
85	Carbon clusters: From ring structures to nanographene. Physical Review B, 2010, 81, .	1.1	60
86	Anomalous Dynamical Behavior of Freestanding Graphene Membranes. Physical Review Letters, 2016, 117, 126801.	2.9	59
87	Coulomb coupling between spatially separated electron and hole layers: Generalized random-phase approximation. Physical Review Letters, 1993, 70, 2146-2149.	2.9	58
88	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TiS</mml:mi><mml:mn>3</mml:mn></mml:msub></mml Width-independent band gap and strain-tunable electronic properties. Physical Review B, 2015, 92, .	1.1	58
89	Strain controlled valley filtering in multi-terminal graphene structures. Applied Physics Letters, 2016, 109, .	1.5	58
90	Nitrogenated, phosphorated and arsenicated monolayer holey graphenes. Physical Chemistry Chemical Physics, 2016, 18, 3144-3150.	1.3	57

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91	Introducing novel electronic and magnetic properties in C₃N nanosheets by defect engineering and atom substitution. Physical Chemistry Chemical Physics, 2019, 21, 21070-21083.	1.3	57
92	Spin and valley polarization of plasmons in silicene due to external fields. Physical Review B, 2014, 90, .	1.1	56
93	The work function of few-layer graphene. Journal of Physics Condensed Matter, 2017, 29, 035003.	0.7	56
94	Tuning the bandgap and introducing magnetism into monolayer BC3 by strain/defect engineering and adatom/molecule adsorption. Journal of Applied Physics, 2019, 126, .	1.1	56
95	Resonant valley filtering of massive Dirac electrons. Physical Review B, 2012, 86, .	1.1	55
96	Nanoengineered nonuniform strain in graphene using nanopillars. Physical Review B, 2012, 86, .	1.1	55
97	Magnetic field tuning of the effective g factor in a diluted magnetic semiconductor quantum dot. Applied Physics Letters, 2003, 82, 2661-2663.	1.5	54
98	Chiral states in bilayer graphene: Magnetic field dependence and gap opening. Physical Review B, 2011, 84, .	1.1	53
99	Graphane. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2015, 5, 255-272.	6.2	53
100	Landau levels above the optical-phonon continuum in two and three dimensions. Physical Review B, 1986, 33, 4338-4340.	1.1	52
101	Electronic structure of a hexagonal graphene flake subjected to triaxial stress. Physical Review B, 2013, 88, .	1.1	52
102	Peculiar half-metallic state in zigzag nanoribbons of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> Spin filtering. Physical Review B, 2016, 94, .	1.1	52
103	Interlayer excitons in transition metal dichalcogenide heterostructures. Physical Review B, 2018, 98, .	1.1	52
104	Stabilized silicene within bilayer graphene: A proposal based on molecular dynamics and density-functional tight-binding calculations. Physical Review B, 2014, 89, .	1.1	51
105	Vacancy Formation and Oxidation Characteristics of Single Layer TiS₃. Journal of Physical Chemistry C, 2015, 119, 10709-10715.	1.5	51
106	Bilayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SnS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> Tunable stacking sequence by charging and loading pressure. Physical Review B, 2016, 93, .	1.1	51
107	Tight-binding model for borophene and borophane. Physical Review B, 2018, 97, .	1.1	51
108	Electronic states in a graphene flake strained by a Gaussian bump. Physical Review B, 2013, 88, .	1.1	50

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109	Peculiar Piezoelectric Properties of Soft Two-Dimensional Materials. Journal of Physical Chemistry C, 2016, 120, 13948-13953.	1.5	50
110	Unusual dimensionality effects and surface charge density in 2D Mg(OH)2. Scientific Reports, 2016, 6, 20525.	1.6	49
111	Electronic and vibrational properties of PbI2 : From bulk to monolayer. Physical Review B, 2018, 98, .	1.1	49
112	Adsorption of molecules on C3N nanosheet: A first-principles calculations. Chemical Physics, 2019, 526, 110442.	0.9	49
113	AA-stacked bilayer square ice between graphene layers. Physical Review B, 2015, 92, .	1.1	48
114	Electronic and magnetic properties of superlattices of graphene/graphane nanoribbons with different edge hydrogenation. Physical Review B, 2010, 82, .	1.1	47
115	Electronic properties of triangular and hexagonal<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> dots. Physical Review B, 2015, 91, .	1.1	47
116	Double MoirÃ© with a Twist: SupermoirÃ© in Encapsulated Graphene. Nano Letters, 2020, 20, 979-988.	4.5	47
117	Graphene ribbons with a line of impurities: Opening of a gap. Physical Review B, 2007, 76, .	1.1	46
118	Transport of hydrogen isotopes through interlayer spacing in van der Waals crystals. Nature Nanotechnology, 2018, 13, 468-472.	15.6	45
119	Excitons, trions, and biexcitons in transition-metal dichalcogenides: Magnetic-field dependence. Physical Review B, 2018, 97, .	1.1	45
120	Wave packet dynamics in semiconductor quantum rings of finite width. Physical Review B, 2009, 80, .	1.1	44
121	Valley filtering using electrostatic potentials in bilayer graphene. Physical Review B, 2015, 92, .	1.1	44
122	Induced polarization and electronic properties of carbon-doped boron nitride nanoribbons. Physical Review B, 2012, 86, .	1.1	43
123	Enhancement of electron-hole superfluidity in double few-layer graphene. Scientific Reports, 2014, 4, 7319.	1.6	42
124	New nanoporous graphyne monolayer as nodal line semimetal: Double Dirac points with an ultrahigh Fermi velocity. Carbon, 2019, 141, 712-718.	5.4	42
125	PAI-graphene: A new topological semimetallic two-dimensional carbon allotrope with highly tunable anisotropic Dirac cones. Carbon, 2020, 170, 477-486.	5.4	42
126	Blue Energy Conversion from Holey-Graphene-like Membranes with a High Density of Subnanometer Pores. Nano Letters, 2020, 20, 8634-8639.	4.5	42

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127	Theory of anharmonic phonons in two-dimensional crystals. Physical Review B, 2015, 91, .	1.1	41
128	Rippling, buckling, and melting of single- and multilayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">MoS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 91, .	1.1	41
129	Kronig-Penney model on bilayer graphene: Spectrum and transmission periodic in the strength of the barriers. Physical Review B, 2010, 82, .	1.1	40
130	Extended Ginzburg-Landau formalism: Systematic expansion in small deviation from the critical temperature. Physical Review B, 2012, 85, .	1.1	40
131	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mg</mml:mi><mml:msub><mml:mrow><mml:mi>O</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>/graphene van der Waals heterobilayer: Electric field tunable band-gap crossover. Physical Review B, 2016, 94, .	1.1	40
132	Carbon-rich carbon nitride monolayers with Dirac cones: Dumbbell C4N. Carbon, 2017, 118, 285-290.	5.4	40
133	Exploiting the Novel Electronic and Magnetic Structure of C₃N via Functionalization and Conformation. Advanced Electronic Materials, 2019, 5, 1900459.	2.6	40
134	Continuous structural transitions in quasi-one-dimensional classical Wigner crystals. Physical Review B, 2010, 81, .	1.1	39
135	Enhancement of the Stability of Fluorine Atoms on Defective Graphene and at Graphene/Fluorographene Interface. ACS Applied Materials & Interfaces, 2015, 7, 19659-19665.	4.0	39
136	The Electronic, Optical, and Thermoelectric Properties of Monolayer PbTe and the Tunability of the Electronic Structure by External Fields and Defects. Physica Status Solidi (B): Basic Research, 2020, 257, 2000182.	0.7	38
137	Magnetic interface states in graphene-based quantum wires. Physical Review B, 2007, 75, .	1.1	37
138	Tuning the magnetic anisotropy in single-layer crystal structures. Physical Review B, 2015, 92, .	1.1	37
139	Two-dimensional graphitic carbon nitrides: Strain-tunable ferromagnetic ordering. Physical Review B, 2020, 101, .	1.1	37
140	Analytical study of the energy levels in bilayer graphene quantum dots. Carbon, 2014, 78, 392-400.	5.4	36
141	Electric-field-induced structural changes in water confined between two graphene layers. Physical Review B, 2016, 94, .	1.1	36
142	Atypical BCS-BEC crossover induced by quantum-size effects. Physical Review A, 2012, 86, .	1.0	35
143	Quantum anomalous Hall effect in a stable 1T-YN₂monolayer with a large nontrivial bandgap and a high Chern number. Nanoscale, 2018, 10, 8153-8161.	2.8	35
144	Out-of-plane permittivity of confined water. Physical Review E, 2020, 102, 022803.	0.8	35

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145	Theoretical study of the stable states of small carbon clusters<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mtext>C</mml:mtext><mml:mi>n</mml:mi></mml:msub></mml:mrow></mml:math> <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mi>n</mml:mi><mml:mo>=</mml:mo><mml:m Physical Review B, 2008, 78, .	1.1	34
146	Dependence of resistivity on electron density and temperature in graphene. Physical Review B, 2009, 79, .	1.1	34
147	Wavepacket scattering of Dirac and SchrÃ¶dinger particles on potential and magnetic barriers. Journal of Physics Condensed Matter, 2011, 23, 275801.	0.7	34
148	Portlandite crystal: Bulk, bilayer, and monolayer structures. Physical Review B, 2015, 91, .	1.1	34
149	Heterostructures of graphene and nitrogenated holey graphene: MoirÃ© pattern and Dirac ring. Physical Review B, 2015, 92, .	1.1	34
150	Fast water flow through graphene nanocapillaries: A continuum model approach involving the microscopic structure of confined water. Applied Physics Letters, 2018, 113, .	1.5	34
151	DC conductivity of twisted bilayer graphene: Angle-dependent transport properties and effects of disorder. Physical Review Materials, 2018, 2, .	0.9	34
152	Insights into Water Permeation through hBN Nanocapillaries by Ab Initio Machine Learning Molecular Dynamics Simulations. Journal of Physical Chemistry Letters, 2020, 11, 7363-7370.	2.1	33
153	Strain and electric field tuning of semi-metallic character WCrCO₂ MXenes with dual narrow band gap. Journal of Physics Condensed Matter, 2020, 32, 355504.	0.7	33
154	Dirac half-metallicity of Thin PdCl3 Nanosheets: Investigation of the Effects of External Fields, Surface Adsorption and Defect Engineering on the Electronic and Magnetic Properties. Scientific Reports, 2020, 10, 213.	1.6	33
155	Quantum and transport conductivities in monolayer graphene. Physical Review B, 2008, 77, .	1.1	32
156	Quantum tunneling through graphene nanorings. Nanotechnology, 2010, 21, 185201.	1.3	32
157	Optoelectronic properties of graphene in the presence of optical phonon scattering. Physical Review B, 2010, 82, .	1.1	32
158	Spin and momentum filtering of electrons on the surface of a topological insulator. Applied Physics Letters, 2011, 98, 162101.	1.5	32
159	Vortex-vortex interaction in bulk superconductors: Ginzburg-Landau theory. Physical Review B, 2011, 83, .	1.1	32
160	Electron-electron interactions in bilayer graphene quantum dots. Physical Review B, 2013, 88, .	1.1	32
161	Structural, electronic and optical properties of Cu-doped ZnO: experimental and theoretical investigation. Philosophical Magazine, 2016, 96, 1743-1756.	0.7	32
162	Antiferromagnetism in hexagonal graphene structures: Rings versus dots. Physical Review B, 2013, 87, .	1.1	31

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163	Field Effect and Strongly Localized Carriers in the Metal-Insulator Transition MaterialVO2. Physical Review Letters, 2015, 115, 196401.	2.9	31
164	The Split-Operator Technique for the Study of Spinorial Wavepacket Dynamics. Communications in Computational Physics, 2015, 17, 850-866.	0.7	31
165	Tunable skewed edges in puckered structures. Physical Review B, 2016, 93, .	1.1	31
166	Electric- and magnetic-field dependence of the electronic and optical properties of phosphorene quantum dots. Nanotechnology, 2017, 28, 085702.	1.3	31
167	Electronic properties of bilayer phosphorene quantum dots in the presence of perpendicular electric and magnetic fields. Physical Review B, 2017, 96, .	1.1	31
168	Quantum transport in defective phosphorene nanoribbons: Effects of atomic vacancies. Physical Review B, 2018, 97, .	1.1	31
169	Single-layer Janus black arsenic-phosphorus (b-AsP): Optical dichroism, anisotropic vibrational, thermal, and elastic properties. Physical Review B, 2020, 101, .	1.1	31
170	Continuum Wannier-Stark Ladders Strongly Coupled by Zener Resonances in Semiconductor Superlattices. Physical Review Letters, 1999, 82, 3120-3123.	2.9	30
171	Topological confinement in graphene bilayer quantum rings. Applied Physics Letters, 2010, 96, .	1.5	30
172	All-strain based valley filter in graphene nanoribbons using snake states. Physical Review B, 2016, 94, .	1.1	30
173	Energy levels of hybrid monolayer-bilayer graphene quantum dots. Physical Review B, 2016, 93, .	1.1	30
174	Landau levels in graphene bilayer quantum dots. Physical Review B, 2009, 79, .	1.1	29
175	Resonant tunneling through S- and U-shaped graphene nanoribbons. Nanotechnology, 2009, 20, 415203.	1.3	29
176	Cerenkov emission of terahertz acoustic-phonons from graphene. Applied Physics Letters, 2013, 102, 222101.	1.5	29
177	Dirac nodal line in bilayer borophene: Tight-binding model and low-energy effective Hamiltonian. Physical Review B, 2018, 98, .	1.1	29
178	Exponentially selective molecular sieving through angstrom pores. Nature Communications, 2021, 12, 7170.	5.8	29
179	Wave-packet scattering on graphene edges in the presence of a pseudomagnetic field. Physical Review B, 2012, 86, .	1.1	28
180	Reversible structural transition in nanoconfined ice. Physical Review B, 2017, 95, .	1.1	28

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181	Free surfaces recast superconductivity in few-monolayer MgB2: Combined first-principles and ARPES demonstration. Scientific Reports, 2017, 7, 14458.	1.6	27
182	Control of the persistent currents in two interacting quantum rings through the Coulomb interaction and interring tunneling. Physical Review B, 2008, 78, .	1.1	26
183	Transport detection of quantum Hall fluctuations in graphene. Physical Review B, 2010, 81, .	1.1	26
184	Exciton pumping across type-I gallium chalcogenide heterojunctions. Nanotechnology, 2016, 27, 065203.	1.3	26
185	Raman fingerprint of stacking order in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>HfS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> heterobilayer. Physical Review B, 2019, 99, .	1.1	26
186	Artificial molecular quantum rings: Spin density functional theory calculations. Physical Review B, 2006, 74, .	1.1	25
187	Klein paradox for a pn junction in multilayer graphene. Europhysics Letters, 2013, 102, 27001.	0.7	25
188	Engineering electronic properties of metalâ€“MoSe₂ interfaces using self-assembled monolayers. Journal of Materials Chemistry C, 2014, 2, 9842-9849.	2.7	25
189	Controlled growth mechanism of poly (3-hexylthiophene) nanowires. Nanotechnology, 2016, 27, 455604.	1.3	25
190	Monolayer alkali and transition-metal monoxides: MgO, CaO, MnO, and NiO. Physical Review B, 2017, 95, .	1.1	25
191	Multicomponent Electron-Hole Superfluidity and the BCS-BEC Crossover in Double Bilayer Graphene. Physical Review Letters, 2017, 119, 257002.	2.9	25
192	Enhanced Stability of Single-Layer w-Gallenene through Hydrogenation. Journal of Physical Chemistry C, 2018, 122, 28302-28309.	1.5	25
193	Band flattening in buckled monolayer graphene. Physical Review B, 2020, 102, .	1.1	25
194	Diffusion-to-streaming transition in a two-dimensional electron system in a polar semiconductor. Physical Review B, 1991, 43, 14134-14141.	1.1	24
195	Spin-polarized ballistic transport in diluted magnetic semiconductor quantum wire systems. Physical Review B, 2003, 68, .	1.1	24
196	Piezoelectric surface acoustical phonon limited mobility of electrons in graphene on a GaAs substrate. Physical Review B, 2013, 87, .	1.1	24
197	Energy levels of bilayer graphene quantum dots. Physical Review B, 2015, 92, .	1.1	24
198	Theory of thermal expansion in 2D crystals. Physica Status Solidi (B): Basic Research, 2015, 252, 2433-2437.	0.7	23

#	Article	IF	Citations
199	Breakdown of Universal Scaling for Nanometer-Sized Bubbles in Graphene. Nano Letters, 2021, 21, 8103-8110.	4.5	23
200	Tight-Binding Studio: A technical software package to find the parameters of tight-binding Hamiltonian. Computer Physics Communications, 2020, 254, 107379.	3.0	23
201	Rayleigh instability of confined vortex droplets in critical superconductors. Nature Physics, 2015, 11, 21-25.	6.5	22
202	Magnetic field dependence of energy levels in biased bilayer graphene quantum dots. Physical Review B, 2016, 93, .	1.1	22
203	Wigner crystallization in transition metal dichalcogenides: A new approach to correlation energy. Physical Review B, 2017, 95, .	1.1	22
204	Electric-field modulation of linear dichroism and Faraday rotation in few-layer phosphorene. 2D Materials, 2019, 6, 015032.	2.0	22
205	Assessment of Sulfur-Functionalized MXenes for Li-Ion Battery Applications. Journal of Physical Chemistry C, 2020, 124, 21293-21304.	1.5	22
206	Structural and dynamical properties of a quasi-one-dimensional classical binary system. Physical Review B, 2008, 77, .	1.1	21
207	Electronic and magnetic properties of 1 T-TiSe ₂ nanoribbons. 2D Materials, 2015, 2, 044002.	2.0	21
208	Infrared to terahertz optical conductivity ofn-type andp-type monolayerMoS2in the presence of Rashba spin-orbit coupling. Physical Review B, 2016, 94, .	1.1	21
209	High-temperature electron-hole superfluidity with strong anisotropic gaps in double phosphorene monolayers. Physical Review B, 2018, 97, .	1.1	21
210	Magneto-polarons in monolayer transition-metal dichalcogenides. Journal of Applied Physics, 2018, 123, .	1.1	21
211	Experimental conditions for the observation of electron-hole superfluidity in GaAs heterostructures. Physical Review B, 2020, 101, .	1.1	21
212	Excitonic Aharonov-Bohm effect: Unstrained versus strained type-I semiconductor nanorings. Physical Review B, 2011, 84, .	1.1	20
213	Braess paradox at the mesoscopic scale. Physical Review B, 2013, 88, .	1.1	20
214	Role of atomic vacancies and boundary conditions on ballistic thermal transport in graphene nanoribbons. Physical Review B, 2014, 90, .	1.1	20
215	Veselago lensing in graphene with a p-n junction: Classical versus quantum effects. Journal of Applied Physics, 2015, 118, .	1.1	20
216	High performance piezotronic spin transistors using molybdenum disulfide nanoribbon. Nano Energy, 2020, 75, 104953.	8.2	20

#	Article	IF	Citations
217	Extended stability region for large bipolarons through interaction with multiple phonon branches. Ferroelectrics, 1992, 130, 27-34.	0.3	19
218	Magnetotransport in periodically modulated bilayer graphene. Physical Review B, 2012, 85, .	1.1	19
219	Strain and band-mixing effects on the excitonic Aharonov-Bohm effect in In(Ga)As/GaAs ringlike quantum dots. Physical Review B, 2013, 87, .	1.1	19
220	Aharonov-Bohm oscillations in phosphorene quantum rings. Physical Review B, 2017, 95, .	1.1	19
221	Multicomponent screening and superfluidity in gapped electron-hole double bilayer graphene with realistic bands. Physical Review B, 2019, 99, .	1.1	19
222	Circular quantum dots in twisted bilayer graphene. Physical Review B, 2020, 101, .	1.1	19
223	Asymmetric Stark shifts in In0.18Ga0.82As/GaAs near-surface quantum wells: The image charge effect. Journal of Applied Physics, 2000, 88, 5246-5251.	1.1	18
224	Intrinsic optical anisotropy of [001]-grown short-period InAs/GaSb superlattices. Physical Review B, 2010, 82, .	1.1	18
225	Gallium bismuth halide GaBi-X2 (X = I, Br, Cl) monolayers with distorted hexagonal framework: Novel room-temperature quantum spin Hall insulators. Nano Research, 2017, 10, 2168-2180.	5.8	18
226	Strong anisotropic optical conductivity in two-dimensional puckered structures: The role of the Rashba effect. Physical Review B, 2017, 96, .	1.1	18
227	Magnetic field dependence of electronic properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> quantum dots with different edges. Physical Review B, 2018, 97, .	1.1	18
228	The magnetic, electronic, and light-induced topological properties in two-dimensional hexagonal FeX2 (Xâ€‰=â€‰Cl, Br, I) monolayers. Applied Physics Letters, 2020, 116, .	1.5	18
229	Influence of Manyâ€Body Effects on the Cyclotron Resonance Mass of Twoâ€Dimensional Polarons with Application to GaAsï£¿Al_{1â^'x}Ga_xAs Heterostructures. Physica Status Solidi (B): Basic Research, 1987, 143, 581-594.	0.7	17
230	High-field transport properties of graphene. Journal of Applied Physics, 2011, 110, .	1.1	17
231	Snake states in graphene quantum dots in the presence of a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>junction. Physical Review B, 2013, 87, .	1.1	17
232	Electron energy and temperature relaxation in graphene on a piezoelectric substrate. Physical Review B, 2014, 89, .	1.1	17
233	Melting of Partially Fluorinated Graphene: From Detachment of Fluorine Atoms to Large Defects and Random Coils. Journal of Physical Chemistry C, 2014, 118, 4460-4464.	1.5	17
234	Fano resonances in the conductance of graphene nanoribbons with side gates. Physical Review B, 2015, 91, .	1.1	17

#	Article	IF	Citations
235	Diffusion of fluorine on and between graphene layers. Physical Review B, 2015, 91, .	1.1	17
236	Gate tunable layer selectivity of transport in bilayer graphene nanostructures. Europhysics Letters, 2016, 113, 17006.	0.7	17
237	Monolayer 1T-LaN2: Dirac spin-gapless semiconductor of p-state and Chern insulator with a high Chern number. Applied Physics Letters, 2020, 117, .	1.5	17
238	Substrate dependent terahertz response of monolayer WS2. Applied Physics Letters, 2020, 116, .	1.5	17
239	N-doped graphene: Polarization effects and structural properties. Physical Review B, 2016, 93, .	1.1	16
240	Fundamental mechanisms responsible for the temperature coefficient of resonant frequency in microwave dielectric ceramics. Journal of the American Ceramic Society, 2017, 100, 1508-1516.	1.9	16
241	Terahertz magneto-optical properties of bi- and tri-layer graphene. Journal of Physics Condensed Matter, 2018, 30, 175701.	0.7	16
242	High pulse area undamping of Rabi oscillations in quantum dots coupled to phonons. Physica Status Solidi (B): Basic Research, 2006, 243, 2233-2240.	0.7	15
243	Computing optical properties of ultraâ€thin crystals. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2016, 6, 351-368.	6.2	15
244	New group-V elemental bilayers: A tunable structure model with four-, six-, and eight-atom rings. Physical Review B, 2017, 96, .	1.1	15
245	Magnetic field dependence of the atomic collapse state in graphene. 2D Materials, 2018, 5, 015017.	2.0	15
246	Single-layer structures of a₁₀₀- and b₀₁₀-Gallenene: a tight-binding approach. Physical Chemistry Chemical Physics, 2019, 21, 15798-15804.	1.3	15
247	Transition Metal Dichalcogenides as Strategy for High Temperature Electron-Hole Superfluidity. Condensed Matter, 2020, 5, 22.	0.8	15
248	Interband Optical Properties of Concentric Type-I Nanorings in a Normal Magnetic Field. Acta Physica Polonica A, 2010, 117, 733-737.	0.2	15
249	Perturbation of collisional plasma flow around a charged dust particle: Kinetic analysis. Physics of Plasmas, 2005, 12, 113501.	0.7	14
250	Multiband tunneling in trilayer graphene. Physical Review B, 2013, 87, .	1.1	14
251	Collapse of the low temperature insulating state in Cr-doped V2O3 thin films. Applied Physics Letters, 2015, 107, .	1.5	14
252	Piezoelectricity in asymmetrically strained bilayer graphene. 2D Materials, 2016, 3, 035015.	2.0	14

#	Article	IF	Citations
253	Valley filtering in graphene due to substrate-induced mass potential. Journal of Physics Condensed Matter, 2017, 29, 215502.	0.7	14
254	Tight-binding model investigation of the biaxial strain induced topological phase transition in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>GeCH</mml:mi><mml:mn>3</mml:mn></mml:msub></m Physical Review B, 2017, 96, .	1.1	14
255	Ab initio and semiempirical modeling of excitons and trions in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TiS</mml:mi><mml:mn>3</mml:mn></mml:msub></m Physical Review B, 2018, 98, .	1.1	14
256	Acoustic plasmons at the crossover between the collisionless and hydrodynamic regimes in two-dimensional electron liquids. Physical Review B, 2019, 99, .	1.1	14
257	Doping-dependent switch from one- to two-component superfluidity in coupled electron-hole van der Waals heterostructures. Physical Review B, 2020, 101, .	1.1	14
258	Abnormal in-plane permittivity and ferroelectricity of confined water: From sub-nanometer channels to bulk. Journal of Chemical Physics, 2021, 154, 114503.	1.2	14
259	Magnetic particles confined in a modulated channel: Structural transitions tunable by tilting a magnetic field. Physical Review E, 2014, 89, 032309.	0.8	13
260	Formation and diffusion characteristics of Pt clusters on Graphene, 1Hâ€MoS₂ and 1Tâ€TaS₂. Annalen Der Physik, 2014, 526, 423-429.	0.9	13
261	Electronic and transport properties of n -type monolayer black phosphorus at low temperatures. Physical Review B, 2017, 95, .	1.1	13
262	Inhomogeneous phases in coupled electron-hole bilayer graphene sheets: Charge Density Waves and Coupled Wigner Crystals. Scientific Reports, 2017, 7, 11510.	1.6	13
263	Ballistic electron channels including weakly protected topological states in delaminated bilayer graphene. Physical Review B, 2018, 97, .	1.1	13
264	Monitoring the effect of asymmetrical vertical strain on Janus single layers of MoSSe via vibrational spectrum. Journal of Chemical Physics, 2018, 149, 084707.	1.2	13
265	Stable single-layers of calcium halides (CaX₂, X = F, Cl, Br, I). Journal of Chemical Physics, 2020, 152, 164116.	1.2	13
266	Optical conductance and transmission in bilayer graphene. Journal of Applied Physics, 2009, 106, 043103.	1.1	12
267	Electron polarization function and plasmons in metallic armchair graphene nanoribbons. Physical Review B, 2015, 91, .	1.1	12
268	Engineering excitonic dynamics and environmental stability of post-transition metal chalcogenides by pyridine functionalization technique. Nanoscale, 2015, 7, 17109-17115.	2.8	12
269	Quantumâ€Transport Characteristics of a pâ€“n Junction on Singleâ€Layer TiS₃. ChemPhysChem, 2016, 17, 3985-3991.	1.0	12
270	Quantum transport across van der Waals domain walls in bilayer graphene. Journal of Physics Condensed Matter, 2017, 29, 425303.	0.7	12

#	Article	IF	Citations
271	Electron collimation at van der Waals domain walls in bilayer graphene. Physical Review B, 2019, 100, .	1.1	12
272	Inner and outer ring states of MoS2 quantum rings: Energy spectrum, charge and spin currents. Journal of Applied Physics, 2019, 125, .	1.1	12
273	Strain engineered linear dichroism and Faraday rotation in few-layer phosphorene. Applied Physics Letters, 2019, 114, 243102.	1.5	12
274	Prediction of monoclinic single-layer Janus <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ga</mml:mi><mml:mn>2</mml:mn></mml: (<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>X</mml:mi></mml:math> = S) Tj ETQq0 0 0 rgBT /Overloc	1.1	12
275	Electron capture in GaAs quantum wells via electronâ€electron and optic phonon scattering. Applied Physics Letters, 1996, 68, 117-119.	1.5	11
276	Interplay between s-d exchange interaction and Rashba effect: Spin-polarized transport. Applied Physics Letters, 2006, 89, 132112.	1.5	11
277	Ag and Au atoms intercalated in bilayer heterostructures of transition metal dichalcogenides and graphene. APL Materials, 2014, 2, 092801.	2.2	11
278	Theoretical study of electronic transport properties of a graphene-silicene bilayer. Journal of Applied Physics, 2015, 117, 225101.	1.1	11
279	Terahertz plasmon-polariton modes in graphene driven by electric field inside a Fabry-PÃ©rot cavity. Journal of Applied Physics, 2015, 117, 223104.	1.1	11
280	Graphene membrane as a pressure gauge. Applied Physics Letters, 2017, 111, .	1.5	11
281	Bound states and lifetime of an electron on a bulk helium surface. Physical Review B, 2005, 72, .	1.1	10
282	Tuning of the two electron states in quantum rings through the spin-orbit interaction. Physical Review B, 2010, 82, .	1.1	10
283	Hexagonal-shaped monolayer-bilayer quantum disks in graphene: A tight-binding approach. Physical Review B, 2016, 94, .	1.1	10
284	Normal and skewed phosphorene nanoribbons in combined magnetic and electric fields. Physical Review B, 2017, 96, .	1.1	10
285	Self-assembly of rigid magnetic rods consisting of single dipolar beads in two dimensions. Physical Review E, 2017, 96, 012603.	0.8	10
286	Topological Dirac semimetal phase in GexSny alloys. Applied Physics Letters, 2018, 112, .	1.5	10
287	Vibrational properties of germanane and fluorinated germanene in the chair, boat, and zigzag-line configurations. Journal of Physics Condensed Matter, 2019, 31, 075301.	0.7	10
288	Prevalence of oxygen defects in an in-plane anisotropic transition metal dichalcogenide. Physical Review B, 2020, 102, .	1.1	10

#	Article	IF	Citations
289	Study on the giant positive magnetoresistance and Hall effect in ultrathin graphite flakes. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1252-1258.	0.8	9
290	Plasmon and coupled plasmon-phonon modes in graphene in the presence of a driving electric field. Physical Review B, 2014, 89, .	1.1	9
291	An efficient finite-difference scheme for computation of electron states in free-standing and coreâ€“shell quantum wires. Computer Physics Communications, 2015, 197, 17-26.	3.0	9
292	Energy levels of ABC-stacked trilayer graphene quantum dots with infinite-mass boundary conditions. Physical Review B, 2016, 94, .	1.1	9
293	Exciton states in a circular graphene quantum dot: Magnetic field induced intravalley to intervalley transition. Physical Review B, 2017, 95, .	1.1	9
294	Stress dependence of the suspended graphene work function: Vacuum Kelvin probe force microscopy and density functional theory. Applied Physics Letters, 2017, 110, 193101.	1.5	9
295	Landau levels in biased graphene structures with monolayer-bilayer interfaces. Physical Review B, 2017, 96, .	1.1	9
296	Graphene quantum blisters: A tunable system to confine charge carriers. Applied Physics Letters, 2018, 112, 213101.	1.5	9
297	Veselago focusing of anisotropic massless Dirac fermions. Physical Review B, 2018, 97, .	1.1	9
298	Molecular collapse in monolayer graphene. 2D Materials, 2019, 6, 045047.	2.0	9
299	Electronic and magnetic properties of single-layer FeCl2 with defects. Physical Review B, 2021, 103, .	1.1	9
300	Electronâ€“hole superfluidity in strained Si/Ge type II heterojunctions. Npj Quantum Materials, 2021, 6, .	1.8	9
301	Band-gap formation and morphing in Î±â^'T3 superlattices. Physical Review B, 2021, 104, .	1.1	9
302	Ferromagnetism with in-plane magnetization, Dirac spin-gapless semiconducting properties, and tunable topological states in two-dimensional rare-earth metal dinitrides. Physical Review B, 2022, 105, .	1.1	9
303	Intersublevel magnetoabsorption in the valence band ofp-typeInAsâ^•GaAsandGeâ^•Siself-assembled quantum dots. Physical Review B, 2005, 71, .	1.1	8
304	Excitonic properties of strained triple quantum-ring molecules. Physical Review B, 2009, 79, .	1.1	8
305	Graphene Hall bar with an asymmetric pn-junction. Journal of Applied Physics, 2013, 113, 193701.	1.1	8
306	Nanofilms as quantum-engineered multiband superconductors: The Ginzburg-Landau theory. Europhysics Letters, 2013, 102, 27003.	0.7	8

#	Article	IF	Citations
307	30-band<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="bold">k</mml:mi><mml:mo>Â·</mml:mo><mml:mi mathvariant="bold">p</mml:mi></mml:mrow></mml:math>model of electron and hole states in silicon quantum wells. Physical Review B, 2013, 88, .	1.1	8
308	Single-file and normal diffusion of magnetic colloids in modulated channels. Physical Review E, 2014, 89, 032306.	0.8	8
309	Structural transitions and long-time self-diffusion of interacting colloids confined by a parabolic potential. Journal of Chemical Physics, 2015, 142, 024902.	1.2	8
310	Large gap electron-hole superfluidity and shape resonances in coupled graphene nanoribbons. Scientific Reports, 2016, 6, 24860.	1.6	8
311	Electrostrictive behavior of confined water subjected to GPa pressure. Physical Review B, 2018, 97, .	1.1	8
312	Multiband Mechanism for the Sign Reversal of Coulomb Drag Observed in Double Bilayer Graphene Heterostructures. Physical Review Letters, 2018, 121, 036601.	2.9	8
313	Strain fields in graphene induced by nanopillar mesh. Journal of Applied Physics, 2019, 125, .	1.1	8
314	Machine learning approach to constructing tight binding models for solids with application to BiTeCl. Journal of Applied Physics, 2020, 128, .	1.1	8
315	Three-dimensional electron-hole superfluidity in a superlattice close to room temperature. Physical Review B, 2020, 102, .	1.1	8
316	Determining the Molecular Orientation on the Metal Nanoparticle Surface through Surface-Enhanced Raman Spectroscopy and Density Functional Theory Simulations. Journal of Physical Chemistry C, 2021, 125, 16289-16295.	1.5	8
317	Slippage dynamics of confined water in graphene oxide capillaries. Physical Review Materials, 2018, 2, .	0.9	8
318	Stability of adsorption of Mg and Na on sulfur-functionalized MXenes. Physical Chemistry Chemical Physics, 2021, 23, 25424-25433.	1.3	8
319	Tunneling properties in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^’</mml:mtext><mml:msub lattices: Effects of symmetry-breaking terms. Physical Review B, 2022, 105, .	1.1	8
320	Electron Effective Mass and Resonant Polaron Effect in CdTe/CdMgTe Quantum Wells. Physica Status Solidi (B): Basic Research, 2002, 229, 597-600.	0.7	7
321	Tuning of anisotropy in two-electron quantum dots by spin-orbit interactions. Applied Physics Letters, 2011, 99, 032102.	1.5	7
322	Comment on â€œChiral tunneling in trilayer grapheneâ€•[Appl. Phys. Lett. 100, 163102 (2012)]. Applied Physics Letters, 2012, 101, .	1.5	7
323	Cyclotron resonance of trilayer graphene. Physical Review B, 2012, 86, .	1.1	7
324	Orbital magnetic moments in insulating Dirac systems: Impact on magnetotransport in graphene van der Waals heterostructures. Physical Review B, 2014, 90, .	1.1	7

#	Article	IF	Citations
325	Stability of CH3 molecules trapped on hydrogenated sites of graphene. Physica B: Condensed Matter, 2014, 455, 60-65.	1.3	7
326	Quantum tunneling between bent semiconductor nanowires. Journal of Applied Physics, 2015, 118, 174301.	1.1	7
327	Electrostatically confined trilayer graphene quantum dots. Physical Review B, 2017, 95, .	1.1	7
328	Structure and reentrant percolation in an inverse patchy colloidal system. Physical Review E, 2017, 95, 062606.	0.8	7
329	Electrical dipole on gapped graphene: Bound states and atomic collapse. Physical Review B, 2018, 98, .	1.1	7
330	Hydration effects and negative dielectric constant of nano-confined water between cation intercalated MXenes. Nanoscale, 2021, 13, 922-929.	2.8	7
331	Confinement and edge effects on atomic collapse in graphene nanoribbons. Physical Review B, 2021, 103, .	1.1	7
332	Spin-polarized transport of two-dimensional electron gas embedded in a diluted magnetic semiconductor. Applied Physics Letters, 2005, 86, 192107.	1.5	6
333	Optoelectronic properties of ABCâ€stacked trilayer graphene. Physica Status Solidi (B): Basic Research, 2013, 250, 86-94.	0.7	6
334	Chiral properties of topological-state loops. Physical Review B, 2015, 91, .	1.1	6
335	Correlation functions in electron-electron and electron-hole double quantum wells: Temperature, density, and barrier-width dependence. Physical Review B, 2019, 99, .	1.1	6
336	Terahertz optical Hall effect in monolayer MoS2 in the presence of proximity-induced interactions. Physical Review B, 2020, 101, .	1.1	6
337	Terahertz magneto-optical properties of graphene hydrodynamic electron liquid. Physical Review B, 2021, 104, .	1.1	6
338	Effect of zitterbewegung on the propagation of wave packets in ABC-stacked multilayer graphene: an analytical and computational approach. Journal of Physics Condensed Matter, 2021, 33, 095503.	0.7	6
339	Resonant Tunneling of Holes in GaMnAs-Related Double-Barrier Structures. Journal of Superconductivity and Novel Magnetism, 2003, 16, 279-282.	0.5	5
340	Artificial molecular quantum rings under magnetic field influence. Journal of Applied Physics, 2009, 106, 073702.	1.1	5
341	Dyakonov-Perel spin relaxation in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>InSb</mml:mtext><mml:mo>/</mml:mo><mml:msub><mml:mrow><mml:mtext>Al</mml:mtext> wells. Physical Review B, 2009, 80, .	1.1	5
342	New family of graphene-based organic semiconductors: An investigation of photon-induced electronic structure manipulation in half-fluorinated graphene. Physical Review B, 2016, 93, .	1.1	5

#	Article	IF	Citations
343	Confined states in graphene quantum blisters. Journal of Physics Condensed Matter, 2018, 30, 385301.	0.7	5
344	Zitterbewegung of MoirÃ© Excitons in Twisted <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m Heterobilayers. Physical Review Letters, 2021, 127, 106801.	2.9	5
345	Interface-dependent phononic and optical properties of GeO/MoSO heterostructures. Nanoscale, 2022, 14, 865-874.	2.8	5
346	Isolated and hybrid bilayer graphene quantum rings. Physical Review B, 2022, 105, .	1.1	5
347	Electronic Properties of Oxidized Graphene: Effects of Strain and an Electric Field on Flat Bands and the Energy Gap. Journal of Physical Chemistry Letters, 2022, 13, 66-74.	2.1	5
348	Hall Magnetocapacitance in Two-Dimensional Electron Systems. Physical Review Letters, 1998, 81, 5398-5401.	2.9	4
349	Hole states in nanocups in a magnetic field. Physical Review B, 2012, 85, .	1.1	4
350	Topological confinement in trilayer graphene. Physical Review B, 2014, 89, .	1.1	4
351	Spatial design and control of graphene flake motion. Physical Review B, 2017, 96, .	1.1	4
352	Edge states in gated bilayer-monolayer graphene ribbons and bilayer domain walls. Journal of Applied Physics, 2018, 123, 204301.	1.1	4
353	Confined electron states in two-dimensional HgTe in magnetic field: Quantum dot versus quantum ring behavior. Physical Review B, 2019, 100, .	1.1	4
354	Asymmetric versus symmetric HgTe / Cd x Hg 1 â^' x Te double quantum wells: Bandgap tuning without electric field. Journal of Applied Physics, 2020, 128, 064301.	1.1	4
355	Reversible ratchet effects in a narrow superconducting ring. Physical Review B, 2021, 103, .	1.1	4
356	Probing the structure and composition of van der Waals heterostructures using the nonlocality of Dirac plasmons in the terahertz regime. 2D Materials, 2021, 8, 015014.	2.0	4
357	Effects of Confinement on Shallow Impurities in GaAs-Ga 1â^'xA1xAs Quantum Dots. Materials Research Society Symposia Proceedings, 1992, 281, 79.	0.1	3
358	Molecular states of two vertically coupled systems of classical charged particles confined by a Coulomb potential. Physical Review B, 2007, 76, .	1.1	3
359	Dynamical properties and melting of binary two-dimensional colloidal alloys. Physical Review E, 2014, 90, 062311.	0.8	3
360	Multicomponent plasmons in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml with circularly polarized optical pumping. Physical Review B, 2017, 96, .	1.1	3

#	Article	IF	Citations
361	Self-assembly and clustering of magnetic peapod-like rods with tunable directional interaction. PLoS ONE, 2018, 13, e0195552.	1.1	3
362	Quantum and transport mobilities of a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Na</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>-based three-dimensional Dirac system. Physical Review B, 2019, 99, .	1.1	3
363	Conductance fluctuations of monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>GeSnH</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> in the topological phase using a low-energy effective tight-binding Hamiltonian. Physical Review B, 2019, 99, .	1.1	3
364	Coulomb impurity on a Dice lattice: Atomic collapse and bound states. Physical Review B, 2022, 105, .	1.1	3
365	Anisotropic and tunable optical conductivity of a two-dimensional semi-Dirac system in the presence of elliptically polarized radiation. Physical Review B, 2022, 105, .	1.1	3
366	Coherent nonlinear optical response of excitons and biexcitons in quantum dots coupled to phonons. Physica Status Solidi (B): Basic Research, 2006, 243, 2241-2246.	0.7	2
367	Spin-orbit-interaction induced singularity of the charge density relaxation propagator. Physical Review B, 2013, 88, .	1.1	2
368	Derivatization and diffusive motion of molecular fullerenes: Ab initio and atomistic simulations. Journal of Applied Physics, 2015, 118, .	1.1	2
369	The 30-bandkâ‹…ptheory of valley splitting in silicon thin layers. Journal of Physics Condensed Matter, 2016, 28, 195303.	0.7	2
370	Characterization of the size and position of electronâ€“hole puddles at a graphene pâ€“n junction. Nanotechnology, 2016, 27, 105203.	1.3	2
371	Enhancement of plasmon-photon coupling in grating coupled graphene inside a Fabry-PÃ©rot cavity. Solid State Communications, 2018, 280, 45-49.	0.9	2
372	Intense-terahertz-laser-modulated magnetopolaron effect on shallow-donor states in the presence of magnetic field in the Voigt configuration. Physical Review B, 2019, 99, .	1.1	2
373	Coulomb drag in strongly coupled quantum wells: Temperature dependence of the many-body correlations. Applied Physics Letters, 2019, 115, .	1.5	2
374	Two-dimensional hydrogenated buckled gallium arsenide: an ab initio study. Journal of Physics Condensed Matter, 2020, 32, 145502.	0.7	2
375	Molecular collapse in graphene: Sublattice symmetry effect. Physical Review B, 2020, 102, .	1.1	2
376	Two-dimensional oxygen functionalized honeycomb and zigzag dumbbell silicene with robust Dirac cones. New Journal of Physics, 2021, 23, 023007.	1.2	2
377	Effect of Mismatched Electron-Hole Effective Masses on Superfluidity in Double Layer Solid-State Systems. Condensed Matter, 2021, 6, 14.	0.8	2
378	The Optical Excitonic Aharonov-Bohm Effect in a Few Nanometer Wide Type-I Nanorings. Acta Physica Polonica A, 2010, 117, 974-977.	0.2	2

#	Article	IF	Citations
379	Tailoring Dirac Plasmons via Anisotropic Dielectric Environment by Design. Physical Review Applied, 2021, 16, .	1.5	2
380	Topologically protected moirÃ© exciton at a twist-boundary in a van der Waals heterostructure. 2D Materials, 2022, 9, 025012.	2.0	2
381	Indentation of graphene nano-bubbles. Nanoscale, 2022, , .	2.8	2
382	Ground state configurations of vertically coupled quantum rings. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 560-562.	0.8	1
383	The interband optical absorption in silicon quantum wells: Application of the 30-band k â‹… p model. Applied Physics Letters, 2014, 104, 242103.	1.5	1
384	Nanofilms as effectively multiband superconductors: Intraband-pairing approximation and Ginzburgâ€“Landau theory. Physica B: Condensed Matter, 2014, 455, 3-5.	1.3	1
385	Wave fronts and packets in 1D models of different meta-materials: Graphene, left-handed media and transmission line. Physica Status Solidi (B): Basic Research, 2015, 252, 2330-2338.	0.7	1
386	Optical absorption window in Na3Bi based three-dimensional Dirac electronic system. Journal of Applied Physics, 2020, 128, .	1.1	1
387	Ultra-thin structures of manganese fluorides: conversion from manganese dichalcogenides by fluorination. Physical Chemistry Chemical Physics, 2021, 23, 10218-10224.	1.3	1
388	Hall and bend resistance of a phosphorene Hall bar. Physical Review B, 2021, 104, .	1.1	1
389	Tunable effective masses of magneto-excitons in two-dimensional materials. Solid State Communications, 2021, 334-335, 114371.	0.9	1
390	Electron Effective Mass and Resonant Polaron Effect in CdTe/CdMgTe Quantum Wells. , 2002, 229, 597.		1
391	Tuning the Electronic, Optical, and Transport Properties of Phosphorene. NATO Science for Peace and Security Series A: Chemistry and Biology, 2020, , 3-42.	0.5	1
392	Electron Relaxation in Multisubband GaAs Quantum Wire. Materials Research Society Symposia Proceedings, 1992, 283, 827.	0.1	0
393	Exciton states and magnetooptical transitions in stacks of InGaAs/GaAs self-assembled quantum rings. AIP Conference Proceedings, 2007, , .	0.3	0
394	Graphene-based quantum wires. AIP Conference Proceedings, 2007, , .	0.3	0
395	Terahertz absorption window in bilayer graphene. , 2009, , .		0
396	Band structure, density of states, and transmission in graphene bilayer superlattices. , 2010, , .		0

#	Article	IF	Citations
397	Angular confinement and direction-dependent transmission in graphene nanostructures with magnetic barriers. , 2010, , .		0
398	Landau-level dispersion and the quantum Hall plateaus in bilayer graphene. , 2013, , .		0
399	Quantum transport in graphene Hall bars: Effects of side gates. Solid State Communications, 2017, 257, 20-26.	0.9	0
400	Anisotropic charge density wave in electron-hole double monolayers: Applied to phosphorene. Physical Review B, 2018, 98, .	1.1	0
401	Reply to â€œComment on â€˜Excitons, trions, and biexcitons in transition-metal dichalcogenides: Magnetic-field dependenceâ€™Ââ€• Physical Review B, 2020, 101, .	1.1	0
402	Transition-metal adatoms on 2D-GaAs: a route to chiral magnetic 2D materials by design. Journal of Physics Condensed Matter, 2021, 33, 145803.	0.7	0
403	Photoluminescence and electronic transition behaviors of single-stranded DNA. Physical Review E, 2021, 104, 034412.	0.8	0
404	Substrate dependent terahertz magneto-optical properties of monolayer WS2. Optics Letters, 2021, 46, 4892.	1.7	0