Florian Libisch

List of Publications by Year
in descending order

84 papers	6,271 citations	101496 36 h-index	66879 78 g-index
89 all docs	89 docs citations	89 times ranked	9211 citing authors

#	Article	IF	Citations
1	Hot Electrons Do the Impossible: Plasmon-Induced Dissociation of H₂ on Au. Nano Letters, 2013, 13, 240-247.	4.5	1,332
2	Photovoltaic Effect in an Electrically Tunable van der Waals Heterojunction. Nano Letters, 2014, 14, 4785-4791.	4.5	943
3	Dynamically encircling an exceptional point for asymmetric mode switching. Nature, 2016, 537, 76-79.	13.7	684
4	Embedded Correlated Wavefunction Schemes: Theory and Applications. Accounts of Chemical Research, 2014, 47, 2768-2775.	7.6	205
5	The Multiradical Character of Oneâ€•and Twoâ€Dimensional Graphene Nanoribbons. Angewandte Chemie - International Edition, 2013, 52, 2581-2584.	7.2	197
6	Graphene quantum dots: Beyond a Dirac billiard. Physical Review B, 2009, 79, .	1.1	170
7	Energy of the 229Th nuclear clock transition. Nature, 2019, 573, 243-246.	13.7	151
8	Electron-Hole Crossover in Graphene Quantum Dots. Physical Review Letters, 2009, 103, 046810.	2.9	125
9	Origin of the Energy Barrier to Chemical Reactions of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>on Al(111): Evidence for Charge Transfer, Not Spin Selection. Physical Review Letters, 2012, 109, 198303.	2.9	125
10	Ultrafast electronic response of graphene to a strong and localized electric field. Nature Communications, 2016, 7, 13948.	5.8	125
11	Phonon renormalization in reconstructed MoS2 moirÃ© superlattices. Nature Materials, 2021, 20, 1100-1105.	13.3	121
12	Wave-Function Mapping of Graphene Quantum Dots with Soft Confinement. Physical Review Letters, 2012, 108, 046801.	2.9	110
13	Electrostatically Confined Monolayer Graphene Quantum Dots with Orbital and Valley Splittings. Nano Letters, 2016, 16, 5798-5805.	4.5	93
14	Size-extensivity-corrected multireference configuration interaction schemes to accurately predict bond dissociation energies of oxygenated hydrocarbons. Journal of Chemical Physics, 2014, 140, 044317.	1.2	85
15	Localized Intervalley Defect Excitons as Single-Photon Emitters in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn> Physical Review Letters, 2019, 123, 146401.	2.9	82
16	Absolute timing of the photoelectric effect. Nature, 2018, 561, 374-377.	13.7	77
17	Two-Color Coherent Control of Femtosecond Above-Threshold Photoemission from a Tungsten Nanotip. Physical Review Letters, 2016, 117, 217601.	2.9	73
18	Size quantization of Dirac fermions in graphene constrictions. Nature Communications, 2016, 7, 11528.	5.8	69

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19	Challenges of modeling nanostructured materials for photocatalytic water splitting. Chemical Society Reviews, 2022, 51, 3794-3818.	18.7	64
20	Probing Decoherence through Fano Resonances. Physical Review Letters, 2010, 105, 056801.	2.9	63
21	Large tunable valley splitting in edge-free graphene quantum dots on boron nitride. Nature Nanotechnology, 2018, 13, 392-397.	15.6	58
22	A comparison of singlet and triplet states for one- and two-dimensional graphene nanoribbons using multireference theory. Theoretical Chemistry Accounts, 2014, 133, 1.	0.5	56
23	High-harmonic generation in graphene: Interband response and the harmonic cutoff. Physical Review B, 2017, 95, .	1.1	55
24	Tunable Fano resonances in transport through microwave billiards. Physical Review E, 2004, 69, 046208.	0.8	50
25	Coherent transport through graphene nanoribbons in the presence of edge disorder. New Journal of Physics, 2012, 14, 123006.	1.2	49
26	Implementation of density functional embedding theory within the projector-augmented-wave method and applications to semiconductor defect states. Journal of Chemical Physics, 2015, 143, 102806.	1.2	46
27	Generating Particlelike Scattering States in Wave Transport. Physical Review Letters, 2011, 106, 120602.	2.9	45
28	Graphene quantum dot on boron nitride: Dirac cone replica and Hofstadter butterfly. Physical Review B, 2014, 90, .	1.1	44
29	The single-channel regime of transport through random media. Nature Communications, 2014, 5, 3488.	5.8	42
30	Electronâ€“Hole Crossover in Gate-Controlled Bilayer Graphene Quantum Dots. Nano Letters, 2020, 20, 7709-7715.	4.5	42
31	Characterizing wave functions in graphene nanodevices: Electronic transport through ultrashort graphene constrictions on a boron nitride substrate. Physical Review B, 2014, 90, .	1.1	41
32	Dissociative Adsorption of O₂ on Al(111): The Role of Orientational Degrees of Freedom. Journal of Physical Chemistry Letters, 2015, 6, 1661-1665.	2.1	41
33	Transition to Landau levels in graphene quantum dots. Physical Review B, 2010, 81, .	1.1	40
34	Dissociative Chemisorption of O₂ on Al(111): Dynamics on a Correlated Wave-Function-Based Potential Energy Surface. Journal of Physical Chemistry Letters, 2018, 9, 3271-3277.	2.1	40
35	Topologically Nontrivial Valley States in Bilayer Graphene Quantum Point Contacts. Physical Review Letters, 2018, 121, 257702.	2.9	39
36	Observation of the Spin-Orbit Gap in Bilayer Graphene by One-Dimensional Ballistic Transport. Physical Review Letters, 2020, 124, 177701.	2.9	39

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37	Mirror symmetry breaking and lateral stacking shifts in twisted trilayer graphene. Physical Review B, 2021, 104, .	1.1	36
38	Topological insulator in the presence of spatially correlated disorder. Physical Review B, 2013, 88, .	1.1	32
39	Nonlinear response of graphene to a few-cycle terahertz laser pulse: Role of doping and disorder. Physical Review B, 2016, 94, .	1.1	32
40	Band Nesting in Two-Dimensional Crystals: An Exceptionally Sensitive Probe of Strain. Nano Letters, 2020, 20, 4242-4248.	4.5	30
41	Angular-Momentum-Dependent Orbital-Free Density Functional Theory. Physical Review Letters, 2013, 111, 066402.	2.9	28
42	Electron-Transfer-Induced Dissociation of H₂on Gold Nanoparticles: Excited-State Potential Energy Surfaces<i>via</i>Embedded Correlated Wavefunction Theory. Zeitschrift Fur Physikalische Chemie, 0, , 130708000310008.	1.4	24
43	Local embedding of coupled cluster theory into the random phase approximation using plane waves. Journal of Chemical Physics, 2021, 154, 011101.	1.2	24
44	Time-dependent potential-functional embedding theory. Journal of Chemical Physics, 2014, 140, 124113.	1.2	22
45	High visibility in two-color above-threshold photoemission from tungsten nanotips in a coherent control scheme. Journal of Modern Optics, 2017, 64, 1054-1060.	0.6	22
46	Atomic-Scale Carving of Nanopores into a van der Waals Heterostructure with Slow Highly Charged Ions. ACS Nano, 2020, 14, 10536-10543.	7.3	22
47	Angular momentum dependent orbital-free density functional theory: Formulation and implementation. Physical Review B, 2014, 89, .	1.1	21
48	Potential Functional Embedding Theory at the Correlated Wave Function Level. 1. Mixed Basis Set Embedding. Journal of Chemical Theory and Computation, 2017, 13, 1067-1080.	2.3	19
49	Accurate modeling of defects in graphene transport calculations. Physical Review B, 2018, 97, .	1.1	18
50	Impact of Many-Body Effects on Landau Levels in Graphene. Physical Review Letters, 2018, 120, 187701.	2.9	18
51	The speed limit of optoelectronics. Nature Communications, 2022, 13, 1620.	5.8	18
52	Embedding for bulk systems using localized atomic orbitals. Journal of Chemical Physics, 2017, 147, 034110.	1.2	17
53	Fano resonances and decoherence in transport through quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 325-333.	1.3	16
54	Potential Functional Embedding Theory at the Correlated Wave Function Level. 2. Error Sources and Performance Tests. Journal of Chemical Theory and Computation, 2017, 13, 1081-1093.	2.3	16

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55	Magneto-optical response of graphene: Probing substrate interactions. Physical Review B, 2015, 92, .	1.1	15
56	Veselago lens and Klein collimator in disordered graphene. Journal of Physics Condensed Matter, 2017, 29, 114002.	0.7	15
57	Time-Dependent Screening Explains the Ultrafast Excitonic Signal Rise in 2D Semiconductors. ACS Nano, 2021, 15, 1179-1185.	7.3	15
58	Surface scattering and band gaps in rough waveguides and nanowires. Physical Review B, 2012, 86, .	1.1	13
59	Negative quantum capacitance in graphene nanoribbons with lateral gates. Physical Review B, 2014, 89, .	1.1	13
60	Percolating states in the topological Anderson insulator. Physical Review B, 2015, 91, .	1.1	12
61	Disorder scattering in graphene nanoribbons. Physica Status Solidi (B): Basic Research, 2011, 248, 2598-2603.	0.7	11
62	Semiclassical wave functions for open quantum billiards. Physical Review E, 2013, 88, 022916.	0.8	11
63	Density functional embedding for periodic and nonperiodic diffusion Monte Carlo calculations. Physical Review B, 2018, 98, .	1.1	9
64	Energy landscapes of graphene under general deformations: DFT-to-hyperelasticity upscaling. International Journal of Engineering Science, 2020, 154, 103342.	2.7	9
65	Bound states in Andreev billiards with soft walls. Physical Review B, 2005, 72, .	1.1	8
66	Shared-memory parallelization of a local correlation multi-reference CI program. Computer Physics Communications, 2014, 185, 3175-3188.	3.0	8
67	Corrigendum to: Plasmon-Driven Dissociation of H₂ on Gold Nanoclusters. Zeitschrift Fur Physikalische Chemie, 2016, 230, 131-132.	1.4	8
68	Electrostatic Detection of Shubnikovâ€"de Haas Oscillations in Bilayer Graphene by Coulomb Resonances in Gateâ€Defined Quantum Dots. Physica Status Solidi (B): Basic Research, 2020, 257, 2000333.	0.7	8
69	Secondary Electron Emission by Plasmon-Induced Symmetry Breaking in Highly Oriented Pyrolytic Graphite. Physical Review Letters, 2020, 125, 196603.	2.9	8
70	Analysis of and remedies for unphysical ground states of the multireference averaged coupled-pair functional. Journal of Chemical Physics, 2014, 140, 024102.	1.2	6
71	A membrane theory for circular graphene sheets, based on a hyperelastic material model for large deformations. Mechanics of Advanced Materials and Structures, 2022, 29, 651-661.	1.5	6
72	Machine learning sparse tight-binding parameters for defects. Npj Computational Materials, 2022, 8, .	3.5	6

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73	Non-retracing orbits in Andreev billiards. Physical Review B, 2006, 73, .	1.1	5
74	Transport through graphene nanoribbons: Suppression of transverse quantization by symmetry breaking. Physica Status Solidi (B): Basic Research, 2016, 253, 2366-2372.	0.7	4
75	Graphene quantum dot states near defects. Physical Review B, 2020, 102, .	1.1	4
76	Decreasing excitation gap in Andreev billiards by disorder scattering. Europhysics Letters, 2008, 82, 47006.	0.7	3
77	Chladni figures in Andreev billiards. European Physical Journal: Special Topics, 2007, 145, 245-254.	1.2	2
78	Diffractive-wave guiding of surface electrons on Au(111) by the herringbone reconstruction potential. Physical Review B, 2014, 90, .	1.1	2
79	Graphene nanoribbons with wings. Applied Physics Letters, 2015, 107, 203107.	1.5	2
80	A Modular Method for the Efficient Calculation of Ballistic Transport Through Quantum Billiards. Lecture Notes in Computer Science, 2006, , 586-593.	1.0	1
81	Coherent control of two-color above-threshold photoemission from tungsten nanotips. Journal of Physics: Conference Series, 2017, 875, 042006.	0.3	0
82	Impact of Strain on the Second-Harmonic Generation in Transition Metal Dichalcogenide Monolayers. , 2019, , .		0
83	Two-color phase-controlled photoemission from a zero-dimensional nanostructure. EPJ Web of Conferences, 2019, 205, 05004.	0.1	0
84	Probing decoherence through Fano resonances. , 2010, , .		0