Johannes Lischner

List of Publications by Year
in descending order

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67 papers	2,342 citations	293460 24 h-index	242451 47 g-index
67 all docs	67 docs citations	67 times ranked	3695 citing authors

#	Article	IF	Citations
1	Lifetime effects and satellites in the photoelectron spectrum of tungsten metal. Physical Review B, 2022, 105, .	1.1	8
2	Chiral valley phonons and flat phonon bands in moirÃ© materials. Physical Review B, 2022, 105, .	1.1	10
3	Unconventional superconductivity in magic-angle twisted trilayer graphene. Npj Quantum Materials, 2022, 7, .	1.8	35
4	Predicting core electron binding energies in elements of the first transition series using the Î”-self-consistent-field method. Faraday Discussions, 2022, 236, 364-373.	1.6	4
5	Electronic structure of monolayer and bilayer black phosphorus with charged defects. Physical Review Materials, 2022, 6, .	0.9	0
6	Atomistic Hartree theory of twisted double bilayer graphene near the magic angle. Electronic Structure, 2022, 4, 025001.	1.0	4
7	Plasmon-Induced Hot Carriers from Interband and Intraband Transitions in Large Noble Metal Nanoparticles. , 2022, 1, .		11
8	Dielectric Engineering of Hot-Carrier Generation by Quantized Plasmons in Embedded Silver Nanoparticles. Journal of Physical Chemistry C, 2021, 125, 3081-3087.	1.5	5
9	Importance of long-ranged electron-electron interactions for the magnetic phase diagram of twisted bilayer graphene. Physical Review B, 2021, 103, .	1.1	17
10	Layer-resolved many-electron interactions in delafossite PdCoO2 from standing-wave photoemission spectroscopy. Communications Physics, 2021, 4, .	2.0	7
11	Light-Induced Charge Transfer from Transition-Metal-Doped Aluminum Clusters to Carbon Dioxide. Journal of Physical Chemistry A, 2021, 125, 5878-5885.	1.1	2
12	Flat band properties of twisted transition metal dichalcogenide homo- and heterobilayers of MoS₂, MoSe₂, WS₂ and WSe₂. 2D Materials, 2021, 8, 045010.	2.0	39
13	Flat bands, electron interactions, and magnetic order in magic-angle mono-trilayer graphene. Physical Review Materials, 2021, 5, .	0.9	14
14	Optical read-out of Coulomb staircases in a moirÃ© superlattice via trapped interlayer trions. Nature Nanotechnology, 2021, 16, 1237-1243.	15.6	23
15	Core Electron Binding Energies in Solids from Periodic All-Electron Î”-Self-Consistent-Field Calculations. Journal of Physical Chemistry Letters, 2021, 12, 9353-9359.	2.1	17
16	Substitutional Tin Acceptor States in Black Phosphorus. Journal of Physical Chemistry C, 2021, 125, 22883-22889.	1.5	5
17	Imaging Reconfigurable Molecular Concentration on a Graphene Field-Effect Transistor. Nano Letters, 2021, 21, 8770-8776.	4.5	6
18	Effect of bilayer stacking on the atomic and electronic structure of twisted double bilayer graphene. Physical Review B, 2020, 102, .	1.1	24

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19	Frontier orbitals and quasiparticle energy levels in ionic liquids. Npj Computational Materials, 2020, 6, .	3.5	3
20	Generation of plasmonic hot carriers from d-bands in metallic nanoparticles. Journal of Chemical Physics, 2020, 152, 104111.	1.2	14
21	Resonant and bound states of charged defects in two-dimensional semiconductors. Physical Review B, 2020, 101, .	1.1	23
22	Untying the insulating and superconducting orders in magic-angle graphene. Nature, 2020, 583, 375-378.	13.7	323
23	Critical role of device geometry for the phase diagram of twisted bilayer graphene. Physical Review B, 2020, 101, .	1.1	22
24	Gate-Tunable Reversible Rashbaâ€“Edelstein Effect in a Few-Layer Graphene/2H-TaS₂ Heterostructure at Room Temperature. ACS Nano, 2020, 14, 5251-5259.	7.3	50
25	A molecular shift register made using tunable charge patterns in one-dimensional molecular arrays on graphene. Nature Electronics, 2020, 3, 598-603.	13.1	12
26	Hartree theory calculations of quasiparticle properties in twisted bilayer graphene. Electronic Structure, 2020, 2, 034001.	1.0	39
27	Twist-angle sensitivity of electron correlations in moirÃ© graphene bilayers. Physical Review B, 2019, 100, .	1.1	38
28	Multiscale modelling of charged impurities in two-dimensional materials. Computational Materials Science, 2019, 160, 368-373.	1.4	5
29	Single plasmon hot carrier generation in metallic nanoparticles. Communications Physics, 2019, 2, .	2.0	28
30	Coexistence of Different Charge-Transfer Mechanisms in the Hot-Carrier Dynamics of Hybrid Plasmonic Nanomaterials. Nano Letters, 2019, 19, 3187-3193.	4.5	34
31	Attractive electron-electron interactions from internal screening in magic-angle twisted bilayer graphene. Physical Review B, 2019, 100, .	1.1	35
32	Insights into the electronic structure of OsO2 using soft and hard x-ray photoelectron spectroscopy in combination with density functional theory. Physical Review Materials, 2019, 3, .	0.9	9
33	Accurate absolute core-electron binding energies of molecules, solids, and surfaces from first-principles calculations. Physical Review Materials, 2019, 3, .	0.9	35
34	Electron-phonon coupling and hot electron thermalization in titanium nitride. Physical Review Materials, 2019, 3, .	0.9	21
35	Universal Scaling of Intrinsic Resistivity in Twoâ€Dimensional Metallic Borophene. Angewandte Chemie - International Edition, 2018, 57, 4585-4589.	7.2	25
36	Universal Scaling of Intrinsic Resistivity in Twoâ€Dimensional Metallic Borophene. Angewandte Chemie, 2018, 130, 4675-4679.	1.6	4

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37	Material, Size, and Environment Dependence of Plasmon-Induced Hot Carriers in Metallic Nanoparticles. Journal of Physical Chemistry C, 2018, 122, 8517-8527.	1.5	66
38	Core electron binding energies of adsorbates on Cu(111) from first-principles calculations. Physical Chemistry Chemical Physics, 2018, 20, 30403-30411.	1.3	23
39	Strong correlations and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>d</mml:mi><mml:mo>+</mml:mo><mml:mi mathvariant="italic">id</mml:mi></mml:mrow></mml:math> superconductivity in twisted bilayer graphene. Physical Review B, 2018, 98, .	1.1	174
40	Microscopy of hydrogen and hydrogen-vacancy defect structures on graphene devices. Physical Review B, 2018, 98, .	1.1	5
41	Tuning electronic properties of transition-metal dichalcogenides via defect charge. Scientific Reports, 2018, 8, 13611.	1.6	17
42	Computational design of bimetallic core-shell nanoparticles for hot-carrier photocatalysis. Npj Computational Materials, 2018, 4, .	3.5	21
43	Impact of complex adatom-induced interactions on quantum spin Hall phases. Physical Review B, 2018, 98, .	1.1	17
44	New Pathway for Hot Electron Relaxation in Two-Dimensional Heterostructures. Nano Letters, 2018, 18, 6057-6063.	4.5	49
45	Microwave Study of Field-Effect Devices Based on Graphene/Aluminum Nitride/Graphene Structures. Scientific Reports, 2017, 7, 44202.	1.6	4
46	First-principles multiscale modelling of charged adsorbates on doped graphene. 2D Materials, 2017, 4, 025070.	2.0	11
47	Energy level alignment at semiconductorâ€“water interfaces from atomistic and continuum solvation models. RSC Advances, 2017, 7, 43660-43670.	1.7	16
48	Spatially resolving density-dependent screening around a single charged atom in graphene. Physical Review B, 2017, 95, .	1.1	16
49	Accurate determination of the valence band edge in hard x-ray photoemission spectra using GW theory. Journal of Applied Physics, 2016, 119, .	1.1	5
50	Tuning charge and correlation effects for a single molecule on a graphene device. Nature Communications, 2016, 7, 13553.	5.8	82
51	Dispersion and line shape of plasmon satellites in one, two, and three dimensions. Physical Review B, 2016, 93, .	1.1	15
52	Spectral functions of the uniform electron gas via coupled-cluster theory and comparison to the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:m related approximations. Physical Review B, 2016, 93, .	1.1	70
53	Numerical integration for ab initio many-electron self energy calculations within the GW approximation. Journal of Computational Physics, 2015, 286, 1-13.	1.9	15
54	First-principles theory of electron-spin fluctuation coupling and superconducting instabilities in iron selenide. Physical Review B, 2015, 91, .	1.1	13

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55	Satellite band structure in silicon caused by electron-plasmon coupling. Physical Review B, 2015, 91, .	1.1	43
56	GW100: Benchmarking G₀W₀ for Molecular Systems. Journal of Chemical Theory and Computation, 2015, 11, 5665-5687.	2.3	280
57	Satellite structures in the spectral functions of the two-dimensional electron gas in semiconductor quantum wells: A<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mm cumulant study. Physical Review B, 2014, 89, .	1.1	21
58	Effect of spin fluctuations on quasiparticle excitations: First-principles theory and application to sodium and lithium. Physical Review B, 2014, 89, .	1.1	11
59	Boron Doped diamond films as electron donors in photovoltaics: An X-ray absorption and hard X-ray photoemission study. Journal of Applied Physics, 2014, 116, .	1.1	7
60	Effects of self-consistency and plasmon-pole models on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:m for closed-shell molecules. Physical Review B, 2014, 90, .	1.1	24
61	AbÂInitioStudy of Hot Carriers in the First Picosecond after Sunlight Absorption in Silicon. Physical Review Letters, 2014, 112, 257402.	2.9	203
62	Physical Origin of Satellites in Photoemission of Doped Graphene: AnAb InitioGWPlus Cumulant Study. Physical Review Letters, 2013, 110, 146801.	2.9	97
63	First-Principles Calculations of Quasiparticle Excitations of Open-Shell Condensed Matter Systems. Physical Review Letters, 2012, 109, 036406.	2.9	29
64	Joint time-dependent density-functional theory for excited states of electronic systems in solution. Physical Review B, 2011, 84, .	1.1	1
65	Material limitations of carbon-nanotube inertial balances: Possibility of intrinsic yoctogram mass resolution at room temperature. Physical Review B, 2010, 81, .	1.1	14
66	Classical Density-Functional Theory of Inhomogeneous Water Including Explicit Molecular Structure and Nonlinear Dielectric Response. Journal of Physical Chemistry B, 2010, 114, 1946-1953.	1.2	26
67	Kohn-Sham-Like Approach toward a Classical Density-Functional Theory of Inhomogeneous Polar Molecular Liquids: An Application to Liquid Hydrogen Chloride. Physical Review Letters, 2008, 101, 216401.	2.9	16