Johannes Lischner

List of Publications by Year in Descending Order

62 papers	1,467 citations	18 h-index	37 g-index
67 ext. papers	1,920 ext. citations	6.4 avg, IF	5.18 L-index

#	Paper	IF	Citations
62	Lifetime effects and satellites in the photoelectron spectrum of tungsten metal. *Physical Review B*, **2022**, 105,	3.3	1
61	Unconventional superconductivity in magic-angle twisted trilayer graphene. *Npj Quantum Materials*, **2022**, 7,	5	4
60	Atomistic Hartree theory of twisted double bilayer graphene near the magic angle. *Electronic Structure*, **2022**, 4, 025001	2.6	0
59	Substitutional Tin Acceptor States in Black Phosphorus. *Journal of Physical Chemistry C*, **2021**, 125, 22883-22889	3.7	0
58	Imaging Reconfigurable Molecular Concentration on a Graphene Field-Effect Transistor. *Nano Letters*, **2021**, 21, 8770-8776	11.5	1
57	Importance of long-ranged electron-electron interactions for the magnetic phase diagram of twisted bilayer graphene. *Physical Review B*, **2021**, 103,	3.3	7
56	Layer-resolved many-electron interactions in delafossite PdCoO2 from standing-wave photoemission spectroscopy. *Communications Physics*, **2021**, 4,	5.4	1
55	Light-Induced Charge Transfer from Transition-Metal-Doped Aluminum Clusters to Carbon Dioxide. *Journal of Physical Chemistry A*, **2021**, 125, 5878-5885	2.8	0
54	Dielectric Engineering of Hot-Carrier Generation by Quantized Plasmons in Embedded Silver Nanoparticles. *Journal of Physical Chemistry C*, **2021**, 125, 3081-3087	3.8	0
53	Flat band properties of twisted transition metal dichalcogenide homo- and heterobilayers of MoS2, MoSe2, WS2 and WSe2. *2D Materials*, **2021**, 8, 045010	5.9	8
52	Flat bands, electron interactions, and magnetic order in magic-angle mono-trilayer graphene. *Physical Review Materials*, **2021**, 5,	3.2	5
51	Optical read-out of Coulomb staircases in a moiré superlattice via trapped interlayer trions. *Nature Nanotechnology*, **2021**, 16, 1237-1243	28.7	6
50	Core Electron Binding Energies in Solids from Periodic All-Electron Self-Consistent-Field Calculations. *Journal of Physical Chemistry Letters*, **2021**, 12, 9353-9359	6.4	7
49	Generation of plasmonic hot carriers from d-bands in metallic nanoparticles. *Journal of Chemical Physics*, **2020**, 152, 104111	3.9	6
48	Resonant and bound states of charged defects in two-dimensional semiconductors. *Physical Review B*, **2020**, 101,	3.3	10
47	Untying the insulating and superconducting orders in magic-angle graphene. *Nature*, **2020**, 583, 375-378	50.4	136
46	Critical role of device geometry for the phase diagram of twisted bilayer graphene. *Physical Review B*, **2020**, 101,	3.3	14

45	Gate-Tunable Reversible Rashba-Edelstein Effect in a Few-Layer Graphene/2H-TaS Heterostructure at Room Temperature. *ACS Nano*, **2020**, 14, 5251-5259	16.7	25
44	A molecular shift register made using tunable charge patterns in one-dimensional molecular arrays on graphene. *Nature Electronics*, **2020**, 3, 598-603	28.4	3
43	Hartree theory calculations of quasiparticle properties in twisted bilayer graphene. *Electronic Structure*, **2020**, 2, 034001	2.6	16
42	Effect of bilayer stacking on the atomic and electronic structure of twisted double bilayer graphene. *Physical Review B*, **2020**, 102,	3.3	12
41	Frontier orbitals and quasiparticle energy levels in ionic liquids. *Npj Computational Materials*, **2020**, 6,	10.9	2
40	Twist-angle sensitivity of electron correlations in moir graphene bilayers. *Physical Review B*, **2019**, 100,	3.3	22
39	Multiscale modelling of charged impurities in two-dimensional materials. *Computational Materials Science*, **2019**, 160, 368-373	3.2	4
38	Single plasmon hot carrier generation in metallic nanoparticles. *Communications Physics*, **2019**, 2,	5.4	15
37	Coexistence of Different Charge-Transfer Mechanisms in the Hot-Carrier Dynamics of Hybrid Plasmonic Nanomaterials. *Nano Letters*, **2019**, 19, 3187-3193	11.5	23
36	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,	3.2	7
35	Accurate absolute core-electron binding energies of molecules, solids, and surfaces from first-principles calculations. *Physical Review Materials*, **2019**, 3,	3.2	20
34	Electron-phonon coupling and hot electron thermalization in titanium nitride. *Physical Review Materials*, **2019**, 3,	3.2	11
33	Attractive electron-electron interactions from internal screening in magic-angle twisted bilayer graphene. *Physical Review B*, **2019**, 100,	3.3	16
32	Universal Scaling of Intrinsic Resistivity in Two-Dimensional Metallic Borophene. *Angewandte Chemie - International Edition*, **2018**, 57, 4585-4589	16.4	18
31	Universal Scaling of Intrinsic Resistivity in Two-Dimensional Metallic Borophene. *Angewandte Chemie*, **2018**, 130, 4675-4679	3.6	4
30	Material, Size, and Environment Dependence of Plasmon-Induced Hot Carriers in Metallic Nanoparticles. *Journal of Physical Chemistry C*, **2018**, 122, 8517-8527	3.8	45
29	Computational design of bimetallic core-shell nanoparticles for hot-carrier photocatalysis. *Npj Computational Materials*, **2018**, 4,	10.9	12
28	Impact of complex adatom-induced interactions on quantum spin Hall phases. *Physical Review B*, **2018**, 98,	3.3	12

27	New Pathway for Hot Electron Relaxation in Two-Dimensional Heterostructures. *Nano Letters*, **2018**, 18, 6057-6063	11.5	37
26	Core electron binding energies of adsorbates on Cu(111) from first-principles calculations. *Physical Chemistry Chemical Physics*, **2018**, 20, 30403-30411	3.6	14
25	Strong correlations and d+id superconductivity in twisted bilayer graphene. *Physical Review B*, **2018**, 98,	3.3	110
24	Microscopy of hydrogen and hydrogen-vacancy defect structures on graphene devices. *Physical Review B*, **2018**, 98,	3.3	3
23	Tuning electronic properties of transition-metal dichalcogenides via defect charge. *Scientific Reports*, **2018**, 8, 13611	4.9	10
22	Microwave Study of Field-Effect Devices Based on Graphene/Aluminum Nitride/Graphene Structures. *Scientific Reports*, **2017**, 7, 44202	4.9	4
21	First-principles multiscale modelling of charged adsorbates on doped graphene. *2D Materials*, **2017**, 4, 025070	5.9	10
20	Energy level alignment at semiconductor–water interfaces from atomistic and continuum solvation models. *RSC Advances*, **2017**, 7, 43660-43670	3.7	13
19	Spatially resolving density-dependent screening around a single charged atom in graphene. *Physical Review B*, **2017**, 95,	3.3	12
18	Tuning charge and correlation effects for a single molecule on a graphene device. *Nature Communications*, **2016**, 7, 13553	17.4	66
17	Dispersion and line shape of plasmon satellites in one, two, and three dimensions. *Physical Review B*, **2016**, 93,	3.3	12
16	Spectral functions of the uniform electron gas via coupled-cluster theory and comparison to the GW and related approximations. *Physical Review B*, **2016**, 93,	3.3	62
15	Accurate determination of the valence band edge in hard x-ray photoemission spectra using GW theory. *Journal of Applied Physics*, **2016**, 119, 165703	2.5	4
14	Satellite band structure in silicon caused by electron-plasmon coupling. *Physical Review B*, **2015**, 91,	3.3	36
13	GW100: Benchmarking G0W0 for Molecular Systems. *Journal of Chemical Theory and Computation*, **2015**, 11, 5665-87	6.4	207
12	Numerical integration for ab initio many-electron self energy calculations within the GW approximation. *Journal of Computational Physics*, **2015**, 286, 1-13	4.1	11
11	First-principles theory of electron-spin fluctuation coupling and superconducting instabilities in iron selenide. *Physical Review B*, **2015**, 91,	3.3	12
10	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, 143702	2.5	7

9	Effects of self-consistency and plasmon-pole models on GW calculations for closed-shell molecules. *Physical Review B*, **2014**, 90,	3.3	21
8	ab initio study of hot carriers in the first picosecond after sunlight absorption in silicon. *Physical Review Letters*, **2014**, 112, 257402	7.4	166
7	Satellite structures in the spectral functions of the two-dimensional electron gas in semiconductor quantum wells: A GW plus cumulant study. *Physical Review B*, **2014**, 89,	3.3	16
6	Effect of spin fluctuations on quasiparticle excitations: First-principles theory and application to sodium and lithium. *Physical Review B*, **2014**, 89,	3.3	6
5	Physical origin of satellites in photoemission of doped graphene: an ab initio GW plus cumulant study. *Physical Review Letters*, **2013**, 110, 146801	7.4	82
4	First-principles calculations of quasiparticle excitations of open-shell condensed matter systems. *Physical Review Letters*, **2012**, 109, 036406	7.4	23
3	Material limitations of carbon-nanotube inertial balances: Possibility of intrinsic yoctogram mass resolution at room temperature. *Physical Review B*, **2010**, 81,	3.3	14
2	Classical density-functional theory of inhomogeneous water including explicit molecular structure and nonlinear dielectric response. *Journal of Physical Chemistry B*, **2010**, 114, 1946-53	3.4	22
1	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	7.4	13