

Thomas Olsen

List of Publications by Year in descending order

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60
papers

7,490
citations

159358

30
h-index

128067

60
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all docs

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docs citations

61
times ranked

9299
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of static correlation on the magnon dynamics of an itinerant ferromagnet with competing exchange interactions: First-principles study of MnBi. <i>Physical Review Materials</i> , 2022, 6, .	0.9	4
2	Måling av energiforbruk ved hjelp av helroms indirekte kalorimetri – En introduksjon og referat fra workshop ved Avdeling for ErnÅringsvitenskap, Universitetet i Oslo. , 2022, 20, 33-37.		0
3	Visualizing atomic structure and magnetism of 2D magnetic insulators via tunneling through graphene. <i>Nature Communications</i> , 2021, 12, 70.	5.8	29
4	Magnetic anisotropy and exchange interactions of two-dimensional FePS ₃ , NiPS ₃ and MnPS ₃ from first principles calculations. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 314001.	1.3	36
5	Mirror Chern numbers in the hybrid Wannier representation. <i>Physical Review B</i> , 2021, 103, .	1.1	1
6	Dynamic transverse magnetic susceptibility in the projector augmented-wave method: Application to Fe, Ni, and Co. <i>Physical Review B</i> , 2021, 103, .	1.1	14
7	Recent progress of the Computational 2D Materials Database (C2DB). <i>2D Materials</i> , 2021, 8, 044002.	2.0	218
8	Spread-balanced Wannier functions: Robust and automatable orbital localization. <i>Physical Review B</i> , 2021, 104, .	1.1	3
9	Oxygen Vacancies Nucleate Charged Domain Walls in Ferroelectrics. <i>Physical Review Letters</i> , 2021, 127, 117601.	2.9	17
10	Unified Treatment of Magnons and Excitons in Monolayer χ_{eff}^2 from Many-Body Perturbation Theory. <i>Physical Review Letters</i> , 2021, 127, 166402.	2.9	20
11	Bulk heterogeneity in barium titanate above the Curie temperature. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	2
12	Towards photoferroic materials by design: recent progress and perspectives. <i>JPhys Energy</i> , 2020, 2, 011001.	2.3	13
13	High-throughput computational screening for two-dimensional magnetic materials based on experimental databases of three-dimensional compounds. <i>Npj Computational Materials</i> , 2020, 6, .	3.5	60
14	Gapless hinge states from adiabatic pumping of axion coupling. <i>Physical Review B</i> , 2020, 102, .	1.1	7
15	Anisotropic properties of monolayer 2D materials: An overview from the C2DB database. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	16
16	Conductance of quantum spin Hall edge states from first principles: The critical role of magnetic impurities and inter-edge scattering. <i>Physical Review B</i> , 2020, 101, .	1.1	18
17	First principles Heisenberg models of 2D magnetic materials: the importance of quantum corrections to the exchange coupling. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 335802.	0.7	14
18	High throughput computational screening for 2D ferromagnetic materials: the critical role of anisotropy and local correlations. <i>2D Materials</i> , 2019, 6, 045018.	2.0	89

#	ARTICLE	IF	CITATIONS
19	Classifying the Electronic and Optical Properties of Janus Monolayers. ACS Nano, 2019, 13, 13354-13364.	7.3	93
20	Reply to comment on "The Computational 2D Materials Database: high-throughput modeling and discovery of atomically thin crystals". 2D Materials, 2019, 6, 048002.	2.0	12
21	Theory and simulations of critical temperatures in CrI ₃ and other 2D materials: easy-axis magnetic order and easy-plane Kosterlitz-Thouless transitions. MRS Communications, 2019, 9, 1142-1150.	0.8	39
22	Spontaneous breaking of time-reversal symmetry at the edges of 1T ϵ^2 monolayer transition metal dichalcogenides. Physical Review B, 2019, 99, .	1.1	8
23	Beyond the RPA and GW methods with adiabatic xc-kernels for accurate ground state and quasiparticle energies. Npj Computational Materials, 2019, 5, .	3.5	33
24	Calculating critical temperatures for ferromagnetic order in two-dimensional materials. 2D Materials, 2019, 6, 015028.	2.0	97
25	Discovering two-dimensional topological insulators from high-throughput computations. Physical Review Materials, 2019, 3, .	0.9	60
26	Geometric and nongeometric contributions to the surface anomalous Hall conductivity. Physical Review B, 2018, 98, .	1.1	21
27	The Computational 2D Materials Database: high-throughput modeling and discovery of atomically thin crystals. 2D Materials, 2018, 5, 042002.	2.0	711
28	Metal-insulator transition in disordered systems from the one-body density matrix. Physical Review B, 2017, 95, .	1.1	5
29	The atomic simulation environment "a Python library for working with atoms. Journal of Physics Condensed Matter, 2017, 29, 273002.	0.7	1,933
30	Interlayer Excitons and Band Alignment in MoS ₂ /hBN/WSe ₂ van der Waals Heterostructures. Nano Letters, 2017, 17, 938-945.	4.5	174
31	Assessing the performance of the random phase approximation for exchange and superexchange coupling constants in magnetic crystalline solids. Physical Review B, 2017, 96, .	1.1	19
32	Surface theorem for the Chern-Simons axion coupling. Physical Review B, 2017, 95, .	1.1	39
33	Defect Chemistry and Electrical Conductivity of Sm-Doped La _{1-x} Sr _x CoO ₃ for Solid Oxide Fuel Cells. Journal of Physical Chemistry C, 2017, 121, 15017-15027.	1.5	13
34	Designing in-plane heterostructures of quantum spin Hall insulators from first principles: $T < T_c$ with adsorbates. Physical Review B, 2016, 94, .		13
35	Defect-Tolerant Monolayer Transition Metal Dichalcogenides. Nano Letters, 2016, 16, 2234-2239.	4.5	111
36	Simple Screened Hydrogen Model of Excitons in Two-Dimensional Materials. Physical Review Letters, 2016, 116, 056401.	2.9	167

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37	Improved description of metal oxide stability: Beyond the random phase approximation with renormalized kernels. <i>Physical Review B</i> , 2015, 92, .	1.1	17
38	Excitons in van der Waals heterostructures: The important role of dielectric screening. <i>Physical Review B</i> , 2015, 92, .	1.1	211
39	Valley Hall effect in disordered monolayer MoS_2 first principles. <i>Physical Review B</i> , 2015, 92, .	1.1	27
40	Static correlation beyond the random phase approximation: Dissociating H_2 with the Bethe-Salpeter equation and time-dependent GW. <i>Journal of Chemical Physics</i> , 2014, 140, 164116.	1.2	32
41	Accurate Ground-State Energies of Solids and Molecules from Time-Dependent Density-Functional Theory. <i>Physical Review Letters</i> , 2014, 112, .	2.9	53
42	How dielectric screening in two-dimensional crystals affects the convergence of excited-state calculations: Monolayer MoS_2 . <i>Physical Review B</i> , 2013, 88, .	1.1	226
43	Quasiparticle GW calculations for solids, molecules, and two-dimensional materials. <i>Physical Review B</i> , 2013, 87, .	1.1	168
44	Beyond the random phase approximation: Improved description of short-range correlation by a renormalized adiabatic local density approximation. <i>Physical Review B</i> , 2013, 88, .	1.1	50
45	Random phase approximation applied to solids, molecules, and graphene-metal interfaces: From van der Waals to covalent bonding. <i>Physical Review B</i> , 2013, 87, .	1.1	120
46	Extending the random-phase approximation for electronic correlation energies: The renormalized adiabatic local density approximation. <i>Physical Review B</i> , 2012, 86, .	1.1	61
47	Computational screening of perovskite metal oxides for optimal solar light capture. <i>Energy and Environmental Science</i> , 2012, 5, 5814-5819.	15.6	354
48	Dispersive and Covalent Interactions between Graphene and Metal Surfaces from the Random Phase Approximation. <i>Physical Review Letters</i> , 2011, 107, 156401.	2.9	172
49	Desorption of H atoms from graphite (0001) using XUV free electron laser pulses. <i>Chemical Physics Letters</i> , 2010, 500, 291-294.	1.2	6
50	Site Specificity in Femtosecond Laser Desorption of Neutral H Atoms from Graphite(0001). <i>Physical Review Letters</i> , 2010, 104, 256102.	2.9	7
51	Vibrationally mediated control of single-electron transmission in weakly coupled molecule-metal junctions. <i>Physical Review B</i> , 2010, 81, .	1.1	2
52	Memory effects in nonadiabatic molecular dynamics at metal surfaces. <i>Journal of Chemical Physics</i> , 2010, 133, 134109.	1.2	5
53	Quantum corrected Langevin dynamics for adsorbates on metal surfaces interacting with hot electrons. <i>Journal of Chemical Physics</i> , 2010, 133, 034115.	1.2	3
54	Electronic structure calculations with GPAW: a real-space implementation of the projector augmented-wave method. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 253202.	0.7	1,451

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55	Inelastic scattering in a local polaron model with quadratic coupling to bosons. Physical Review B, 2009, 79, .	1.1	8
56	Hot-electron-mediated desorption rates calculated from excited-state potential energy surfaces. Physical Review B, 2009, 79, .	1.1	59
57	Origin of Power Laws for Reactions at Metal Surfaces Mediated by Hot Electrons. Physical Review Letters, 2009, 103, 238301.	2.9	41
58	Density functional theory based screening of ternary alkali-transition metal borohydrides: A computational material design project. Journal of Chemical Physics, 2009, 131, 014101.	1.2	77
59	Hot-electron-assisted femtochemistry at surfaces: A time-dependent density functional theory approach. Physical Review B, 2009, 79, .	1.1	18
60	\hat{I} self-consistent field method to obtain potential energy surfaces of excited molecules on surfaces. Physical Review B, 2008, 78, .	1.1	182