

# Claudia Draxl

## List of Publications by Year in descending order

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all docs

258  
docs citations

258  
times ranked

15163  
citing authors

#	ARTICLE	IF	CITATIONS
1	Linear optical properties of solids within the full-potential linearized augmented planewave method. Computer Physics Communications, 2006, 175, 1-14.	3.0	1,215
2	Reproducibility in density functional theory calculations of solids. Science, 2016, 351, aad3000.	6.0	1,113
3	Transport coefficients from first-principles calculations. Physical Review B, 2003, 68, .	1.1	663
4	Big Data of Materials Science: Critical Role of the Descriptor. Physical Review Letters, 2015, 114, 105503.	2.9	658
5	Band-structure topologies of graphene: Spin-orbit coupling effects from first principles. Physical Review B, 2009, 80, .	1.1	579
6	Optical Constants and Inelastic Electron-Scattering Data for 17 Elemental Metals. Journal of Physical and Chemical Reference Data, 2009, 38, 1013-1092.	1.9	487
7	ElaStic: A tool for calculating second-order elastic constants from first principles. Computer Physics Communications, 2013, 184, 1861-1873.	3.0	362
8	NOMAD: The FAIR concept for big data-driven materials science. MRS Bulletin, 2018, 43, 676-682.	1.7	288
9	Reconstruction of Molecular Orbital Densities from Photoemission Data. Science, 2009, 326, 702-706.	6.0	282
10	Confined Pyrolysis within Metal-Organic Frameworks To Form Uniform Ru <sub>3</sub> Clusters for Efficient Oxidation of Alcohols. Journal of the American Chemical Society, 2017, 139, 9795-9798.	6.6	258
11	Van der Waals Interactions Between Organic Adsorbates and at Organic/Inorganic Interfaces. MRS Bulletin, 2010, 35, 435-442.	1.7	257
12	Charge distribution and electric-field gradients in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> . Physical Review B, 1990, 42, 2051-2061.	1.1	248
13	exciting: a full-potential all-electron package implementing density-functional theory and many-body perturbation theory. Journal of Physics Condensed Matter, 2014, 26, 363202.	0.7	241
14	First-principles studies of the structural and optical properties of crystalline poly(para-phenylene). Physical Review B, 1995, 51, 9668-9676.	1.1	231
15	Effect of Rhenium on the Dislocation Core Structure in Tungsten. Physical Review Letters, 2010, 104, 195503.	2.9	225
16	Characterization of Step-Edge Barriers in Organic Thin-Film Growth. Science, 2008, 321, 108-111.	6.0	190
17	Theoretical study of PTCDA adsorbed on the coinage metal surfaces, Ag(111), Au(111) and Cu(111). New Journal of Physics, 2009, 11, 053010.	1.2	182
18	Force calculation and atomic-structure optimization for the full-potential linearized augmented plane-wave code WIEN. Computer Physics Communications, 1996, 94, 31-48.	3.0	177

#	ARTICLE	IF	CITATIONS
19	Intra- and Intermolecular Band Dispersion in an Organic Crystal. <i>Science</i> , 2007, 317, 351-355.	6.0	174
20	Electronic properties of oligoacenes from first principles. <i>Physical Review B</i> , 2005, 72, .	1.1	171
21	The NOMAD laboratory: from data sharing to artificial intelligence. <i>JPhys Materials</i> , 2019, 2, 036001.	1.8	171
22	Importance of Van Der Waals Interaction for Organic Molecule-Metal Junctions: Adsorption of Thiophene on Cu(110) as a Prototype. <i>Physical Review Letters</i> , 2007, 99, 176401.	2.9	159
23	Oligoacene exciton binding energies: Their dependence on molecular size. <i>Physical Review B</i> , 2005, 71, .	1.1	152
24	Second-Harmonic Optical Response from First Principles. <i>Physica Scripta</i> , 2004, T109, 128.	1.2	151
25	Crystal and electronic structures of pentacene thin films from grazing-incidence x-ray diffraction and first-principles calculations. <i>Physical Review B</i> , 2007, 76, .	1.1	147
26	Optical absorption spectra of semiconductors and insulators including electron-hole correlations: An ab initio study within the LAPW method. <i>Physical Review B</i> , 2002, 66, .	1.1	128
27	Linear and second-order optical response of III-V monolayer superlattices. <i>Physical Review B</i> , 2003, 67, .	1.1	122
28	The role of polymorphism in organic thin films: oligoacenes investigated from first principles. <i>New Journal of Physics</i> , 2009, 11, 125010.	1.2	112
29	Encapsulation of Conjugated Oligomers in Single-Walled Carbon Nanotubes: Towards Nanohybrids for Photonic Devices. <i>Advanced Materials</i> , 2010, 22, 1635-1639.	11.1	112
30	Transport, optical, and electronic properties of the half-metal CrO <sub>2</sub> . <i>Physical Review B</i> , 1999, 59, 411-418.	1.1	109
31	Epitaxial Growth of $\pi$ -Stacked Perfluoropentacene on Graphene-Coated Quartz. <i>ACS Nano</i> , 2012, 6, 10874-10883.	7.3	108
32	Influence of the Core-Valence Interaction and of the Pseudopotential Approximation on the Electron Self-Energy in Semiconductors. <i>Physical Review Letters</i> , 2008, 101, 106404.	2.9	107
33	Dislocation-core symmetry and slip planes in tungsten alloys: Ab initio calculations and microcantilever bending experiments. <i>Acta Materialia</i> , 2012, 60, 748-758.	3.8	106
34	Roadmap on organic-inorganic hybrid perovskite semiconductors and devices. <i>APL Materials</i> , 2021, 9, .	2.2	102
35	First-principles calculation of hot-electron scattering in metals. <i>Physical Review B</i> , 2004, 70, .	1.1	101
36	The Dielectric Constant of Self-Assembled Monolayers. <i>Advanced Functional Materials</i> , 2008, 18, 3999-4006.	7.8	101

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37	Optical response of high temperature superconductors by full potential LAPW band structure calculations. <i>Physica B: Condensed Matter</i> , 1994, 194-196, 1451-1452.	1.3	100
38	Orbital tomography: Deconvoluting photoemission spectra of organic molecules. <i>Physical Review B</i> , 2011, 84, .	1.1	99
39	Electronic structure and ferroelectricity in SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> . <i>Physical Review B</i> , 2000, 61, 14434-14439.	1.1	95
40	Density-functional study for the oligomers of poly(para-phenylene): Band structures and dielectric tensors. <i>Physical Review B</i> , 1999, 60, 7891-7898.	1.1	94
41	Cohesive and surface energies of $\pi$ -conjugated organic molecular crystals: A first-principles study. <i>Physical Review B</i> , 2008, 77, .	1.1	89
42	Lowest Optical Excitations in Molecular Crystals: Bound Excitons versus Free Electron-Hole Pairs in Anthracene. <i>Physical Review Letters</i> , 2004, 92, 147402.	2.9	86
43	Optical absorbance of oriented thin films. <i>Synthetic Metals</i> , 1996, 76, 177-179.	2.1	84
44	FAIR data enabling new horizons for materials research. <i>Nature</i> , 2022, 604, 635-642.	13.7	81
45	Structure, morphology, and optical properties of highly ordered films of para-sexiphenyl. <i>Physical Review B</i> , 2000, 61, 16538-16549.	1.1	77
46	Accurate all-electron $G$ energies employing the full-potential augmented plane-wave method. <i>Physical Review B</i> , 2016, 94, .	0.1	77
47	Organic/Inorganic Hybrid Materials: Challenges for <i>ab Initio</i> Methodology. <i>Accounts of Chemical Research</i> , 2014, 47, 3225-3232.	7.6	75
48	First-Principles Approach to Noncollinear Magnetism: Towards Spin Dynamics. <i>Physical Review Letters</i> , 2007, 98, 196405.	2.9	74
49	Suppression of Electron-Hole Correlations in 3D Polymer Materials. <i>Physical Review Letters</i> , 2002, 89, 056405.	2.9	72
50	All-Electron Exact Exchange Treatment of Semiconductors: Effect of Core-Valence Interaction on Band-Gap and Band Position. <i>Physical Review Letters</i> , 2005, 95, 136402.	2.9	70
51	Electronic structure and electric-field gradients for YBa <sub>2</sub> Cu <sub>4</sub> O <sub>8</sub> from density-functional calculations. <i>Physical Review B</i> , 1991, 44, 5141-5147.	1.1	68
52	Time-dependent density functional theory versus Bethe-Salpeter equation: an all-electron study. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 4451.	1.3	67
53	Computing Equilibrium Shapes of Wurtzite Crystals: The Example of GaN. <i>Physical Review Letters</i> , 2015, 115, 085503.	2.9	66
54	Bethe-Salpeter equation for absorption and scattering spectroscopy: implementation in the exciting code. <i>Electronic Structure</i> , 2019, 1, 037001.	1.0	66

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55	Ab initio study of anthracene under high pressure. <i>Physical Review B</i> , 2003, 67, .	1.1	65
56	All-electron Bethe-Salpeter calculations for shallow-core x-ray absorption near-edge structures. <i>Physical Review B</i> , 2009, 79, .	1.1	65
57	Initial stages of a <i>para</i> -hexaphenyl film growth on amorphous mica. <i>Physical Review B</i> , 2011, 83, .	1.1	65
58	Electronic band structure of pentacene: An experimental and theoretical study. <i>Physical Review B</i> , 2008, 77, .	1.1	63
59	Epitaxy of Rodlike Organic Molecules on Sheet Silicates—A Growth Model Based on Experiments and Simulations. <i>Journal of the American Chemical Society</i> , 2011, 133, 3056-3062.	6.6	61
60	Optical properties and band structure of $2H\text{-WSe}_2$ . <i>Physical Review B</i> , 1999, 60, 8610-8615.	1.1	57
61	Fermi-surface-induced lattice distortion in $\text{NbTe}_2$ . <i>Physical Review B</i> , 2005, 72, .	1.1	56
62	FHI-gap: A code based on the all-electron augmented plane wave method. <i>Computer Physics Communications</i> , 2013, 184, 348-366.	3.0	56
63	Estimating Excitonic Effects in the Absorption Spectra of Solids: Problems and Insight from a Guided Iteration Scheme. <i>Physical Review Letters</i> , 2015, 114, 146402.	2.9	56
64	Ab initio calculations of excitons in GaN. <i>Physical Review B</i> , 2005, 72, .	1.1	55
65	Pressure studies on the intermolecular interactions in biphenyl. <i>Synthetic Metals</i> , 2001, 116, 327-331.	2.1	53
66	High pressure x-ray study on anthracene. <i>Journal of Chemical Physics</i> , 2003, 119, 1078-1084.	1.2	52
67	Relativistic effects on the linear optical properties of Au, Pt, Pb and W. <i>New Journal of Physics</i> , 2010, 12, 103048.	1.2	52
68	Interchain interaction and Davydov splitting in polythiophene crystals: An ab initio approach. <i>Applied Physics Letters</i> , 2002, 80, 4118-4120.	1.5	51
69	Polarized absorbance and Davydov splitting in bulk and thin-film pentacene polymorphs. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 29724-29736.	1.3	50
70	Electric-Magneto-Optical Kerr Effect in a Hybrid Organic-Inorganic Perovskite. <i>Journal of the American Chemical Society</i> , 2017, 139, 12883-12886.	6.6	49
71	OPTIMADE, an API for exchanging materials data. <i>Scientific Data</i> , 2021, 8, 217.	2.4	49
72	Structure Solution of the 6,13-Pentacenequinone Surface-Induced Polymorph by Combining X-ray Diffraction Reciprocal-Space Mapping and Theoretical Structure Modeling. <i>Crystal Growth and Design</i> , 2011, 11, 600-606.	1.4	44

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73	Linear interpolation scheme for phonon-induced potentials: Application to bulk $MgB_2$ and the $W_0$ method. Physical Review B, 2008, 78, .	1.1	42
74	Structure optimization of $YBa_2Cu_3O_7$ and its influence on phonons and Fermi surface. Physical Review B, 1999, 60, 9321-9324.	1.1	41
75	Chain-length-dependent intermolecular packing in polyphenylenes: a high pressure study. Journal of Physics Condensed Matter, 2003, 15, 3375-3389.	0.7	41
76	Raman scattering in $YBa_2Cu_3O_7$ : A comprehensive theoretical study in comparison with experiments. Physical Review B, 2002, 65, .	1.1	40
77	Electronic structure of $Ti_2$ . Physical Review B, 1999, 59, 14833-14836.	1.1	38
78	Impact of widely used approximations to the $G_0W_0$ method: an all-electron perspective. New Journal of Physics, 2012, 14, 023006.	1.2	38
79	Electronic, optical, and structural properties of oligophenylene molecular crystals under high pressure: An ab initio investigation. Physical Review B, 2003, 67, .	1.1	37
80	Electronic Interactions between $P_{66}$ and $P_{60}$ : The Case of Oligothiophenes Encapsulated in Carbon Nanotubes. Small, 2011, 7, 1807-1815.	5.2	37
81	The influence of interstitial carbon on the $\hat{\Gamma}_3$ -surface in austenite. Acta Materialia, 2013, 61, 341-349.	3.8	37
82	Optical spectra from molecules to crystals: Insight from many-body perturbation theory. Physical Review B, 2015, 92, .	1.1	37
83	First-principles calculation of superconductivity in hole-doped $LiBC_2$ : $T_c=65K$ . Physical Review B, 2003, 68, .	1.1	36
84	Geometry-Dependent Electronic Properties of Highly Fluorescent Conjugated Molecules. Physical Review Letters, 2000, 85, 2388-2391.	2.9	35
85	Influence of Polymorphism on the Electronic Structure of $Ga_2O_3$ . Chemistry of Materials, 2020, 32, 8460-8470.	3.2	35
86	Near-edge structures from first principles all-electron Bethe-Salpeter equation calculations. Journal of Physics Condensed Matter, 2009, 21, 104205.	0.7	34
87	Stacking-fault energy and anti-Invar effect in Fe-Mn alloy from first principles. Physical Review B, 2012, 86, .	1.1	33
88	Band renormalization of a polymer physisorbed on graphene investigated by many-body perturbation theory. Physical Review B, 2012, 86, .	1.1	33
89	Photoisomerization for a molecular switch in contact with a surface. Physical Review B, 2012, 85, .	1.1	32
90	State-of-Matter-Dependent Charge-Transfer Interactions between Planar Molecules for Doping Applications. Chemistry of Materials, 2019, 31, 1237-1249.	3.2	32

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91	Electric-field gradient calculations for YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> . Journal of Physics Condensed Matter, 1989, 1, 4491-4496.	0.7	31
92	Dynamic structure factors of Cu, Ag, and Au: Comparative study from first principles. Physical Review B, 2013, 88, .	1.1	31
93	Dimensionality of excitons in stacked van der Waals materials: The example of hexagonal boron nitride. Physical Review B, 2018, 97, .	1.1	31
94	AB-INITIO STUDY ON THE EXCITON BINDING ENERGIES IN ORGANIC SEMICONDUCTORS. Modern Physics Letters B, 2006, 20, 261-280.	1.0	30
95	Magnetic Control of Spin-Orbit Fields: A First-Principles Study of $\text{FeGaAs}$ Junctions. Physical Review Letters, 2013, 111, 036603.	2.9	30
96	Light Controls Polymorphism in Thin Films of Sexithiophene. Crystal Growth and Design, 2015, 15, 1319-1324.	1.4	30
97	Stability and electronic properties of phosphorene oxides: from 0-dimensional to amorphous 2-dimensional structures. Nanoscale, 2017, 9, 2428-2435.	2.8	30
98	Attosecond state-resolved carrier motion in quantum materials probed by soft x-ray XANES. Applied Physics Reviews, 2021, 8, .	5.5	30
99	Hot-electron lifetimes in metals: $\text{ab initio}$ calculation and ballistic electron emission spectroscopy analysis. Physical Review B, 2003, 68, .	1.1	29
100	Atomic signatures of local environment from core-level spectroscopy in $\text{O}_3$ . Physical Review B, 2016, 94, .	1.1	28
101	A momentum space view of the surface chemical bond. Physical Chemistry Chemical Physics, 2011, 13, 3604.	1.3	27
102	Electronic structure of CrO <sub>2</sub> as deduced from its magneto-optical Kerr spectra. Physical Review B, 2002, 65, .	1.1	26
103	Phase transition and electronic properties of fluorene: A joint experimental and theoretical high-pressure study. Physical Review B, 2006, 73, .	1.1	26
104	Bound excitons and many-body effects in x-ray absorption spectra of azobenzene-functionalized self-assembled monolayers. Physical Review B, 2015, 92, .	1.1	26
105	Enhanced Light-Matter Interaction in Graphene/h-BN van der Waals Heterostructures. Journal of Physical Chemistry Letters, 2017, 8, 1464-1471.	2.1	26
106	Band gap renormalization, carrier mobilities, and the electron-phonon self-energy in crystalline naphthalene. Physical Review B, 2020, 101, .	1.1	26
107	Ultrafast Hot Phonon Dynamics in $\text{MgB}_2$ Driven by Anisotropic Electron-Phonon Coupling. Physical Review Letters, 2020, 124, 077001.	2.1	26
108	Accessing the Anisotropic Nonthermal Phonon Populations in Black Phosphorus. Nano Letters, 2021, 21, 6171-6178.	4.5	25

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109	$\frac{L}{L^2}$ x-ray absorption spectra in III-V semiconductors: Many-body perturbation theory in comparison with experiment. Physical Review B, 2011, 83, .	1.1	24
110	Fingerprint of Fractional Charge Transfer at the Metal/Organic Interface. Journal of Physical Chemistry C, 2015, 119, 12538-12544.	1.5	24
111	Predicting Ground-State Configurations and Electronic Properties of the Thermoelectric Clathrates $Ba_8Al_4Si_{46}$ and $Sr_8Al_4Si_{46}$ . Chemistry of Materials, 2017, 29, 2414-2424.	3.2	24
112	Fermi-surface topology of rare-earth dihydrides. Physical Review B, 2004, 70, .	1.1	23
113	Self-consistently renormalized quasiparticles under the electron-phonon interaction. Physical Review B, 2009, 79, .	1.1	23
114	Molecular structure of the substrate-induced thin-film phase of tetracene. Journal of Chemical Physics, 2018, 149, 144701.	1.2	23
115	Doping-induced charge redistribution in the high-temperature superconductor $HgBa_2CuO_{4+\delta}$ . Physical Review B, 2003, 67, .	1.1	22
116	Complex Quasiparticle Band Structure Induced by Electron-Phonon Interaction: Band Splitting in the $1\bar{A}-1H/W(110)$ Surface. Physical Review Letters, 2008, 101, 036402.	2.9	22
117	$\frac{(100)}{O}$	1.1	22
118	Exciton-Dominated Core-Level Absorption Spectra of Hybrid Organic-Inorganic Lead Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 1852-1858.	2.1	22
119	Microstructure and Phase Behavior of a Quinquethiophene-Based Self-Assembled Monolayer as a Function of Temperature. Journal of Physical Chemistry C, 2011, 115, 22925-22930.	1.5	21
120	Graphene-modulated photo-absorption in adsorbed azobenzene monolayers. Physical Chemistry Chemical Physics, 2017, 19, 6196-6205.	1.3	21
121	Investigation of $A_1g$ phonons in $YBa_2Cu_3O_7$ by means of linearized-augmented-plane-wave atomic-force calculations. Physical Review B, 1997, 56, 14766-14770.	1.1	20
122	Augmented Planewave Methods. Physica Scripta, 2004, T109, 48.	1.2	20
123	The electronic structure of pentacene revisited. Journal of Electron Spectroscopy and Related Phenomena, 2009, 174, 22-27.	0.8	20
124	Crystal structure determination from two-dimensional powders: A combined experimental and theoretical approach. European Physical Journal: Special Topics, 2009, 167, 59-65.	1.2	20
125	Theoretical analysis of the momentum-dependent loss function of bulk Ag. Ultramicroscopy, 2010, 110, 1081-1086.	0.8	20
126	noLoco: An efficient implementation of van der Waals density functionals based on a Monte-Carlo integration technique. Computer Physics Communications, 2011, 182, 1657-1662.	3.0	20



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127	Electronic and optical excitations of two-dimensional $ZrS_2$ and $HfS_2$ and their heterostructure. <i>Physical Review Materials</i> , 2019, 3, .	0.9	19
128	Lithiation of InSb and $Cu_2Sb$ theoretical investigation. <i>Physical Review B</i> , 2004, 70, .	1.1	18
129	Pressure-Induced Hole Doping of the Hg-Based Cuprate Superconductors. <i>Physical Review Letters</i> , 2004, 92, 187004.	2.9	18
130	A full-band $\eta$ -method for solving the Kohn-Sham equation. <i>Computer Physics Communications</i> , 2007, 177, 280-287.	3.0	18
131	Optical properties of azobenzene-functionalized self-assembled monolayers: Intermolecular coupling and many-body interactions. <i>Journal of Chemical Physics</i> , 2016, 145, 234701.	1.2	18
132	Electric field gradient calculations for $YBa_2Cu_3O_{7-x}$ . <i>Physica C: Superconductivity and Its Applications</i> , 1989, 162-164, 1353-1354.	0.6	17
133	Excitonic effects in molecular crystals built up by small organic molecules. <i>Chemical Physics</i> , 2006, 325, 3-8.	0.9	17
134	Evidence of Hybrid Excitons in Weakly Interacting Nanopeapods. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2664-2667.	2.1	17
135	Energy-Level Alignment at the Interface of Graphene Fluoride and Boron Nitride Monolayers: An Investigation by Many-Body Perturbation Theory. <i>Journal of Physical Chemistry C</i> , 2016, 120, 11671-11678.	1.5	17
136	Resonant electronic Raman scattering in high-Tc superconductors. <i>Physical Review B</i> , 2002, 65, .	1.1	16
137	Optical properties, electron-phonon coupling, and Raman scattering of vanadium ladder compounds. <i>Physical Review B</i> , 2004, 70, .	1.1	16
138	Titanium induced polarity inversion in ordered (In,Ga)N/GaN nanocolumns. <i>Nanotechnology</i> , 2016, 27, 065705.	1.3	16
139	First-principles band-structure calculations as a tool for the quantitative interpretation of Raman spectra of high temperature superconductors. <i>Zeitschrift für Physik B-Condensed Matter</i> , 1997, 104, 687-691.	1.1	15
140	Measurement and density functional calculations of optical constants of Ag and Au from infrared to vacuum ultraviolet wavelengths. <i>Physical Review B</i> , 2008, 77, .	1.1	15
141	Combined use of small-angle neutron scattering and atom probe tomography for the analysis of precipitates in a Fe-15 m% Co-25% Mo alloy. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 97, 331-340.	1.1	15
142	Energetics and structure of organic molecules embedded in single-wall carbon nanotubes from first principles: The example of benzene. <i>Physical Review B</i> , 2011, 84, .	1.1	15
143	Understanding the effects of packing and chemical terminations on the optical excitations of azobenzene-functionalized self-assembled monolayers. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 394005.	0.7	15
144	$MoTe_2$ as a natural hyperbolic material across the visible and the ultraviolet region. <i>Physical Review Materials</i> , 2020, 4, .	0.9	15

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145	Ab-initio study of excitonic effects in conventional and organic semiconductors. Physica Status Solidi (B): Basic Research, 2005, 242, 1754-1758.	0.7	14
146	First-principles calculation of X-ray dichroic spectra within the full-potential linearized augmented plane-wave method: An implementation into the Wien2k code. Computer Physics Communications, 2012, 183, 628-636.	3.0	14
147	Diffusive and massive phase transformations in Ti-Al-Nb alloys – Modelling and experiments. Intermetallics, 2013, 38, 126-138.	1.8	14
148	Mapping Atomic Orbitals with the Transmission Electron Microscope: Images of Defective Graphene Predicted from First-Principles Theory. Physical Review Letters, 2016, 117, 036801.	2.9	14
149	Vibrational Effects in X-ray Absorption Spectra of Two-Dimensional Layered Materials. Journal of Physical Chemistry C, 2019, 123, 9688-9692.	1.5	14
150	Optical and electronic properties of crystalline poly(para-phenylene) by first-principles calculations and experimental results. Synthetic Metals, 1995, 69, 411-414.	2.1	13
151	High pressure Raman studies on the structural conformation of oligophenyls. Synthetic Metals, 2001, 116, 163-166.	2.1	13
152	Stress and pressure within the linearized-augmented plane-wave method. Solid State Communications, 2002, 124, 275-282.	0.9	13
153	First-principles study of HgBa <sub>2</sub> Ca <sub>n-1</sub> Cu <sub>n</sub> O <sub>2n+2</sub> under pressure. Physical Review B, 2004, 69, .	1.1	13
154	Structure optimization effects on the electronic and vibrational properties of Bi <sub>2</sub> Sr <sub>2</sub> CaCu <sub>2</sub> O <sub>8</sub> . Physical Review B, 2004, 69, .	1.1	13
155	The Be K-edge in beryllium oxide and chalcogenides: soft x-ray absorption spectra from first-principles theory and experiment. Journal of Physics Condensed Matter, 2013, 25, 315501.	0.7	13
156	Electronic and Optical Excitations at the Pyridine/ZnO(101̄0) Hybrid Interface. Advanced Theory and Simulations, 2019, 2, 1800108.	1.3	13
157	Multiband electron-phonon coupling in the cuprates: Raman scattering and charge fluctuations. Physical Review B, 2000, 62, 9713-9720.	1.1	12
158	Ab-initio study on the inter-molecular interactions in polythiophene. Synthetic Metals, 2001, 119, 245-246.	2.1	12
159	Electronic properties and Raman spectra of rare-earth carbide halides investigated from first principles. Physical Review B, 2001, 64, .	1.1	12
160	Raman- and infrared-active phonons in superconducting and nonsuperconducting rare-earth transition-metal borocarbides from full-potential calculations. Physical Review B, 2003, 67, .	1.1	12
161	Spin polarization and relativistic electronic structure of the 1Å <sup>-1</sup> H/W(110) surface. New Journal of Physics, 2009, 11, 013056.	1.2	12
162	LayerOptics: Microscopic modeling of optical coefficients in layered materials. Computer Physics Communications, 2016, 201, 119-125.	3.0	12

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163	Structural, electronic, and optical properties of periodic graphene/h-BN van der Waals heterostructures. <i>Physical Review Materials</i> , 2020, 4, .	0.9	12
164	Transport, optical and electronic properties of the half metal CrO <sub>2</sub> . <i>Journal of Applied Physics</i> , 1999, 85, 6220-6222.	1.1	11
165	Bonding and physical properties of the scheelite-type materials AgReO <sub>4</sub> and NaReO <sub>4</sub> . <i>Physical Review B</i> , 2003, 67, .	1.1	11
166	Excitons in organic semiconductors. <i>Comptes Rendus Physique</i> , 2009, 10, 504-513.	0.3	11
167	Polymorphism in 1,4-sexithiophene crystals: relative stability and transition path. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 14603-14609.	1.3	11
168	Spatial Confinement as an Effective Strategy for Improving the Catalytic Selectivity in Acetylene Hydrogenation. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 39352-39361.	4.0	11
169	Chirality of Valley Excitons in Monolayer Transition-Metal Dichalcogenides. <i>Journal of Physical Chemistry Letters</i> , 0, , 5894-5899.	2.1	11
170	Optical properties of poly(p-phenylene vinylene) from first-principles calculations. <i>Synthetic Metals</i> , 1997, 85, 1099-1100.	2.1	10
171	Geometry-dependent absorption, and emission of para-hexaphenyl. <i>Synthetic Metals</i> , 1999, 101, 662-663.	2.1	10
172	Phonons and electron-phonon interaction by linear-response theory within the LAPW method. <i>Physical Review B</i> , 2001, 64, .	1.1	10
173	Charge ordering in quarter-filled ladder systems coupled to the lattice. <i>Physical Review B</i> , 2004, 69, .	1.1	10
174	Zone-center phonons in NaV <sub>2</sub> O <sub>5</sub> : A comprehensive ab initio study including Raman spectra and electron-phonon interaction. <i>Physical Review B</i> , 2007, 75, .	1.1	10
175	Angle-resolved photoemission of chain-like molecules: the electronic band structure of sexithiophene and sexiphenyl. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 95, 101-105.	1.1	10
176	ATAT@WIEN2k: An interface for cluster expansion based on the linearized augmented planewave method. <i>Computer Physics Communications</i> , 2010, 181, 913-920.	3.0	10
177	A consistent picture of excitations in cubic BaSnO <sub>3</sub> revealed by combining theory and experiment. <i>Communications Materials</i> , 2022, 3, .	2.9	10
178	Electronic structure of PrBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> from LAPW band structure calculations. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 2347-2356.	0.7	9
179	Electronic properties of ppp-oligomers investigated from first-principles. <i>Synthetic Metals</i> , 1999, 101, 673-674.	2.1	9
180	Atomistic Modeling of Optical Properties of Thin Films. <i>Advanced Engineering Materials</i> , 2006, 8, 1151-1155.	1.6	9

#	ARTICLE	IF	CITATIONS
181	Linear and nonlinear optical properties of Li under pressure. <i>Physical Review B</i> , 2006, 73, .	1.1	9
182	Predicting the electronic structure of weakly interacting hybrid systems: The example of nanosized peapod structures. <i>Physical Review B</i> , 2012, 86, .	1.1	9
183	First-principles study on lattice instabilities and structural phase transitions in Ba doped La <sub>2</sub> CuO <sub>4</sub> . <i>Physica C: Superconductivity and Its Applications</i> , 2015, 517, 20-25.	0.6	9
184	Electronic Structure of (Organic)Inorganic Metal Halide Perovskites: The Dilemma of Choosing the Right Functional. <i>Advanced Theory and Simulations</i> , 2022, 5, .	1.3	9
185	Role of electron-electron correlation in the valence states of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> : Low-energy excitations and Fermi surface. <i>Physical Review B</i> , 2001, 64, .	1.1	8
186	Calculated Optical Absorption of Anthracene under High Pressure. <i>Synthetic Metals</i> , 2003, 137, 935-936.	2.1	8
187	Doping dependence of the electronic structure and the Raman-active modes in La <sub>2-x</sub> Ba <sub>x</sub> CuO <sub>4</sub> . <i>Physical Review B</i> , 2003, 67, .	1.1	8
188	The LDA-1/2 Method Applied to Atoms and Molecules. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 4678-4686.	2.3	8
189	Theoretical description of optical and x-ray absorption spectra of MgO including many-body effects. <i>Physical Review B</i> , 2021, 103, .	1.1	8
190	Local-spin-density calculations of antiferromagnetic YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6</sub> and La <sub>2</sub> CuO <sub>4</sub> . <i>Solid State Communications</i> , 1991, 77, 45-48.	0.9	7
191	On the structure of oligophenylenes. <i>Synthetic Metals</i> , 2001, 119, 371-372.	2.1	7
192	Charge kinks as Raman scatterers in quarter-filled ladders. <i>Physical Review B</i> , 2001, 63, .	1.1	7
193	Influence of pressure on the structure and electronic properties of the layered superconductor Y <sub>2</sub> CuO <sub>7</sub> . <i>Journal of Physics Condensed Matter</i> , 2005, 17, S3121-S3130.	0.7	7
194	Inhomogeneity effects in oxygen-doped HgBa <sub>2</sub> CuO <sub>4</sub> . <i>Physical Review B</i> , 2006, 74, .	1.1	7
195	The LDA-1/2 method implemented in the exciting code. <i>Computer Physics Communications</i> , 2017, 220, 263-268.	3.0	7
196	Crystal-Phase Quantum Wires: One-Dimensional Heterostructures with Atomically Flat Interfaces. <i>Nano Letters</i> , 2018, 18, 247-254.	4.5	7
197	Rashba and Dresselhaus effects in two-dimensional Pb-I-based perovskites. <i>Physical Review B</i> , 2022, 105, .	1.1	7
198	Electronic structure and optical properties of ThPd <sub>3</sub> and UPd <sub>3</sub> . <i>Physical Review B</i> , 2000, 62, 15547-15552.	1.1	6

#	ARTICLE	IF	CITATIONS
199	Optical Properties and Raman Scattering of Vanadium Ladder Compounds. Physica Scripta, 2004, T109, 159.	1.2	6
200	First-principles approach to the understanding of $\pi$ -conjugated organic semiconductors. Monatshefte für Chemie, 2008, 139, 389-399.	0.9	6
201	First-principles study of phonons, optical properties, and Raman spectra in $\text{MgV}_2\text{O}_6$ . Physical Review B, 2008, 78, .	1.1	6
202	Rigamonti et al. Reply. Physical Review Letters, 2016, 117, 159702.	2.9	6
203	Energy-Level Alignment at Organic/Inorganic Interfaces from First Principles: Example of Poly( <i>para</i> -phenylene)/Rock-Salt ZnO(100). Chemistry of Materials, 2019, 31, 7143-7150.	3.2	6
204	Maximally localized Wannier functions within the $\text{MgO}$ $10^6$ atom supercell: A new method. Physical Review B, 2020, 101, .	1.1	6
205	Fingerprints of optical absorption in the perovskite $\text{LaInO}_3$ : Insight from many-body theory and experiment. Physical Review B, 2021, 103, .	1.1	6
206	All-electron full-potential implementation of real-time TDDFT in exciting. Electronic Structure, 2021, 3, 037001.	1.0	6
207	Numerical quality control for DFT-based materials databases. Npj Computational Materials, 2022, 8, .	3.5	6
208	Hybrid excitations at the interface between a $\text{MoS}_2$ monolayer and organic molecules: A first-principles study. Physical Review Materials, 2022, 6, .	0.9	6
209	Calculation of EFGs in high $T_c$ superconductors. Hyperfine Interactions, 1990, 61, 1117-1120.	0.2	5
210	Ab-initio Study of the Vacancy Ordering in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ . Journal of Low Temperature Physics, 1999, 117, 395-400.	0.6	5
211	First-principles investigation of $\text{SrBi}_2\text{Ta}_2\text{O}_9$ . Ferroelectrics, 2000, 237, 49-56.	0.3	5
212	Robust mixing in self-consistent linearized augmented planewave calculations. Electronic Structure, 2020, 2, 037001.	1.0	5
213	Tuning two-dimensional electron and hole gases at $\text{LaInO}_3/\text{BaSnO}_3$ interfaces by polar distortions, termination, and thickness. Npj Computational Materials, 2021, 7, .	3.5	5
214	Optical properties of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ determined from full potential LAPW calculations. Physica C: Superconductivity and Its Applications, 1994, 235-240, 2119-2120.	0.6	4
215	$A_{1g}$ phonons in $\text{YBa}_2\text{Cu}_3\text{O}_7$ by first-principles atomic-force calculations. European Physical Journal D, 1996, 46, 923-924.	0.4	4
216	Geometry effects on the electronic properties of $\text{YBa}_2\text{Cu}_3\text{O}_7$ . Zeitschrift für Physik B-Condensed Matter, 1997, 104, 779-781.	1.1	4



#	ARTICLE	IF	CITATIONS
235	X-ray diffraction study of anthracene under high pressure. Synthetic Metals, 2003, 137, 913-914.	2.1	2
236	First-principles study of Pd-alloyed Cu(111) surface in hydrogen atmosphere at realistic temperatures. Journal of Applied Physics, 2020, 128, 145302.	1.1	2
237	Influence of carbon on energetics, electronic structure, and mechanical properties of TiAl alloys. New Journal of Physics, 2021, 23, 073048.	1.2	2
238	Ehrenfest dynamics implemented in the all-electron package exciting. Electronic Structure, 2022, 4, 037001.	1.0	2
239	Pressure study of structural properties and phonons in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Journal of Low Temperature Physics, 1999, 117, 443-447.	0.6	1
240	Resonant Raman scattering in the superconducting cuprates: Frozen-phonon versus perturbational approach. European Physical Journal B, 2000, 16, 251-259.	0.6	1
241	The role of doping and pressure in Hg based high T <sub>c</sub> cuprates: A theoretical study. Current Applied Physics, 2008, 8, 149-152.	1.1	1
242	Coupling of Hubbard fermions with phonons in La <sub>2</sub> CuO <sub>4</sub> : A combined study using density-functional theory and the generalized tight-binding method. Journal of Alloys and Compounds, 2015, 648, 258-264.	2.8	1
243	Valence and conduction band edges of selenide and sulfide-based kesterites—a study by x-ray based spectroscopy and ab initio theory. Semiconductor Science and Technology, 2017, 32, 104010.	1.0	1
244	GIMS: Graphical Interface for Materials Simulations. Journal of Open Source Software, 2021, 6, 2767.	2.0	1
245	Fermi surface-analysis of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> by full-potential LAPW calculations. Physica C: Superconductivity and Its Applications, 1997, 282-287, 1637-1638.	0.6	0
246	Calculated optical properties of ppp-oligomers. Synthetic Metals, 1999, 101, 671-672.	2.1	0
247	FIRST-PRINCIPLES INVESTIGATIONS OF STRUCTURAL PROPERTIES, PHONONS, AND VACANCY ORDERING IN YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> , ,		0
248	Raman intensity in HTSC: Role of the states near the Fermi surface. Physica C: Superconductivity and Its Applications, 2000, 341-348, 2267-2268.	0.6	0
249	First-principles Raman studies on YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physica C: Superconductivity and Its Applications, 2000, 341-348, 2245-2246.	0.6	0
250	Theory of isotope effects in Raman spectra of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physica C: Superconductivity and Its Applications, 2000, 341-348, 2247-2248.	0.6	0
251	First-principles Raman studies on rare-earth carbide halides. Physica C: Superconductivity and Its Applications, 2000, 341-348, 2261-2262.	0.6	0
252	Probing electron-phonon coupling in high-T <sub>c</sub> superconductors by site-selective isotope substitution. European Physical Journal B, 2002, 26, 323-328.	0.6	0

#	ARTICLE	IF	CITATIONS
253	Raman scattering of vanadium ladder compounds from first principles. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3146-3149.	0.8	0
254	Multielectron approach to the electronic structure and mechanisms of superconductivity in high-Tc cuprates. Journal of Magnetism and Magnetic Materials, 2009, 321, 917-919.	1.0	0