

Anderson Janotti

List of Publications by Citations

Source: <https://exaly.com/author-pdf/2566107/anderson-janotti-publications-by-citations.pdf>

Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

127
papers

12,704
citations

42
h-index

112
g-index

135
ext. papers

14,082
ext. citations

4.8
avg, IF

6.97
L-index

#	Paper	IF	Citations
127	Fundamentals of zinc oxide as a semiconductor. <i>Reports on Progress in Physics</i> , 2009 , 72, 126501	14.4	2712
126	Native point defects in ZnO. <i>Physical Review B</i> , 2007 , 76,	3.3	1820
125	First-principles calculations for point defects in solids. <i>Reviews of Modern Physics</i> , 2014 , 86, 253-305	40.5	1431
124	Oxygen vacancies in ZnO. <i>Applied Physics Letters</i> , 2005 , 87, 122102	3.4	887
123	Hydrogen multicentre bonds. <i>Nature Materials</i> , 2007 , 6, 44-7	27	600
122	Sources of electrical conductivity in SnO ₂ . <i>Physical Review Letters</i> , 2008 , 101, 055502	7.4	309
121	Effects of cation d states on the structural and electronic properties of III-nitride and II-oxide wide-band-gap semiconductors. <i>Physical Review B</i> , 2006 , 74,	3.3	301
120	Direct view at excess electrons in TiO ₂ rutile and anatase. <i>Physical Review Letters</i> , 2014 , 113, 086402	7.4	300
119	New insights into the role of native point defects in ZnO. <i>Journal of Crystal Growth</i> , 2006 , 287, 58-65	1.6	290
118	Shallow versus deep nature of Mg acceptors in nitride semiconductors. <i>Physical Review Letters</i> , 2012 , 108, 156403	7.4	207
117	Defect formation energies without the band-gap problem: combining density-functional theory and the GW approach for the silicon self-interstitial. <i>Physical Review Letters</i> , 2009 , 102, 026402	7.4	196
116	Electrostatic carrier doping of GdTiO ₃ /SrTiO ₃ interfaces. <i>Applied Physics Letters</i> , 2011 , 99, 232116	3.4	195
115	Native point defects and dangling bonds in Al ₂ O ₃ . <i>Journal of Applied Physics</i> , 2013 , 113, 044501	2.5	165
114	Vacancies and small polarons in SrTiO ₃ . <i>Physical Review B</i> , 2014 , 90,	3.3	156
113	Hydrogen doping in indium oxide: An ab initio study. <i>Physical Review B</i> , 2009 , 80,	3.3	148
112	First-principles optical spectra for F centers in MgO. <i>Physical Review Letters</i> , 2012 , 108, 126404	7.4	131
111	Absolute deformation potentials and band alignment of wurtzite ZnO, MgO, and CdO. <i>Physical Review B</i> , 2007 , 75,	3.3	121

110	Role of nitrogen vacancies in the luminescence of Mg-doped GaN. <i>Applied Physics Letters</i> , 2012 , 100, 142110	3.4	107
109	LDA + U and hybrid functional calculations for defects in ZnO, SnO ₂ , and TiO ₂ . <i>Physica Status Solidi (B): Basic Research</i> , 2011 , 248, 799-804	1.3	100
108	Origins of optical absorption and emission lines in AlN. <i>Applied Physics Letters</i> , 2014 , 105, 111104	3.4	94
107	First-principles theory of acceptors in nitride semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , 2015 , 252, 900-908	1.3	90
106	Effects of doping on the lattice parameter of SrTiO ₃ . <i>Applied Physics Letters</i> , 2012 , 100, 262104	3.4	90
105	Interactions between hydrogen impurities and vacancies in Mg and Al: A comparative analysis based on density functional theory. <i>Physical Review B</i> , 2009 , 80,	3.3	86
104	Impact of carbon and nitrogen impurities in high-dielectrics on metal-oxide-semiconductor devices. <i>Applied Physics Letters</i> , 2013 , 102, 142902	3.4	84
103	Sources of unintentional conductivity in InN. <i>Applied Physics Letters</i> , 2008 , 92, 032104	3.4	80
102	Tuning bad metal and non-Fermi liquid behavior in a Mott material: Rare-earth nickelate thin films. <i>Science Advances</i> , 2015 , 1, e1500797	14.3	76
101	Band Gap and Band Offset of Ga ₂ O ₃ and (Al _x Ga _{1-x}) ₂ O ₃ Alloys. <i>Physical Review Applied</i> , 2018 , 10,	4.3	75
100	Effects of strain on the band structure of group-III nitrides. <i>Physical Review B</i> , 2014 , 90,	3.3	73
99	(In _x Ga _{1-x}) ₂ O ₃ alloys for transparent electronics. <i>Physical Review B</i> , 2015 , 92,	3.3	68
98	A first-principles study of the effect of Ta on the superlattice intrinsic stacking fault energy of L1 ₂ -Co ₃ (Al,W). <i>Intermetallics</i> , 2012 , 28, 138-143	3.5	68
97	Role of oxygen vacancies in crystalline WO ₃ . <i>Journal of Materials Chemistry C</i> , 2016 , 4, 6641-6648	7.1	65
96	BaSnO ₃ as a channel material in perovskite oxide heterostructures. <i>Applied Physics Letters</i> , 2016 , 108, 083501	3.4	61
95	Self-consistent band-gap corrections in density functional theory using modified pseudopotentials. <i>Physical Review B</i> , 2007 , 75,	3.3	60
94	First-principles analysis of electron transport in BaSnO ₃ . <i>Physical Review B</i> , 2017 , 95,	3.3	59
93	Structural origins of the properties of rare earth nickelate superlattices. <i>Physical Review B</i> , 2013 , 87,	3.3	59

92	First-Principles Calculations of Point Defects for Quantum Technologies. <i>Annual Review of Materials Research</i> , 2018 , 48, 1-26	12.8	58
91	Advances in electronic structure methods for defects and impurities in solids. <i>Physica Status Solidi (B): Basic Research</i> , 2011 , 248, 19-27	1.3	53
90	First-principles study of the formation and migration of native defects in NaAlH ₄ . <i>Physical Review B</i> , 2009 , 80,	3.3	50
89	Correct Implementation of Polarization Constants in Wurtzite Materials and Impact on III-Nitrides. <i>Physical Review X</i> , 2016 , 6,	9.1	49
88	Vacancy defects in indium oxide: An ab-initio study. <i>Current Applied Physics</i> , 2011 , 11, S296-S300	2.6	48
87	Disentangling the role of small polarons and oxygen vacancies in CeO ₂ . <i>Physical Review B</i> , 2017 , 95,	3.3	47
86	Electron and chemical reservoir corrections for point-defect formation energies. <i>Physical Review B</i> , 2016 , 93,	3.3	42
85	Formation and migration of charged native point defects in MgH ₂ : First-principles calculations. <i>Physical Review B</i> , 2009 , 80,	3.3	42
84	First-principles study of the mobility of SrTiO ₃ . <i>Physical Review B</i> , 2014 , 90,	3.3	40
83	Band alignments and polarization properties of BN polymorphs. <i>Applied Physics Express</i> , 2014 , 7, 031001	2.4	39
82	Impact of Group-II Acceptors on the Electrical and Optical Properties of GaN. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 08JJ04	1.4	35
81	Hydrogen bonds in Al ₂ O ₃ as dissipative two-level systems in superconducting qubits. <i>Scientific Reports</i> , 2014 , 4, 7590	4.9	33
80	Quantum computing with defects. <i>MRS Bulletin</i> , 2013 , 38, 802-807	3.2	32
79	A pathway to p-type wide-band-gap semiconductors. <i>Applied Physics Letters</i> , 2009 , 95, 172109	3.4	31
78	First-principles study of vacancy-assisted impurity diffusion in ZnO. <i>APL Materials</i> , 2014 , 2, 096101	5.7	30
77	Effect of transition-metal additives on hydrogen desorption kinetics of MgH ₂ . <i>Applied Physics Letters</i> , 2013 , 102, 033902	3.4	29
76	Band alignment and p-type doping of ZnSnN ₂ . <i>Physical Review B</i> , 2017 , 95,	3.3	28
75	Native point defects in LaAlO ₃ : A hybrid functional study. <i>Physical Review B</i> , 2013 , 88,	3.3	27

74	Small polarons and point defects in barium cerate. <i>Physical Review B</i> , 2015 , 92,	3.3	26
73	Large disparity between optical and fundamental band gaps in layered In ₂ Se ₃ . <i>Physical Review B</i> , 2018 , 98,	3.3	26
72	Mechanisms for the decomposition and dehydrogenation of Li amide/imide. <i>Physical Review B</i> , 2012 , 85,	3.3	24
71	Impact of native defects in high-k dielectric oxides on GaN/oxide metal/oxide semiconductor devices. <i>Physica Status Solidi (B): Basic Research</i> , 2013 , 250, 787-791	1.3	21
70	Role of point defects in the electrical and optical properties of In ₂ O ₃ . <i>Physical Review Materials</i> , 2019 , 3,	3.2	21
69	Thermal transport across metal silicide-silicon interfaces: An experimental comparison between epitaxial and nonepitaxial interfaces. <i>Physical Review B</i> , 2017 , 95,	3.3	20
68	Optimizing optical absorption of TiO ₂ by alloying with TiS ₂ . <i>Applied Physics Letters</i> , 2008 , 92, 041104	3.4	20
67	Phase transformations upon doping in WO ₃ . <i>Journal of Chemical Physics</i> , 2017 , 146, 214504	3.9	18
66	Interband and polaronic excitations in YTiO ₃ from first principles. <i>Physical Review B</i> , 2014 , 90,	3.3	18
65	The particle-size dependence of the activation energy for decomposition of lithium amide. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 10170-3	16.4	18
64	Carrier density control of magnetism and Berry phases in doped EuTiO ₃ . <i>APL Materials</i> , 2018 , 6, 056105	5.7	18
63	Decomposition mechanism and the effects of metal additives on the kinetics of lithium alanate. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 2840-8	3.6	17
62	Topological phase transition in LaAs under pressure. <i>Physical Review B</i> , 2018 , 98,	3.3	16
61	A simple electron counting model for half-Heusler surfaces. <i>Science Advances</i> , 2018 , 4, eaar5832	14.3	15
60	Strong effect of electron-phonon interaction on the lattice thermal conductivity in 3C-SiC. <i>Physical Review Materials</i> , 2017 , 1,	3.2	15
59	Band gap evolution in Ruddlesden-Popper phases. <i>Physical Review Materials</i> , 2019 , 3,	3.2	15
58	Assessing the roles of Cu- and Ag-deficient layers in chalcopyrite-based solar cells through first principles calculations. <i>Journal of Applied Physics</i> , 2020 , 127, 065303	2.5	13
57	Effects of Doping on the Crystal Structure of BiVO ₄ . <i>Journal of Physical Chemistry C</i> , 2019 , 123, 26752-26757	3.7	12

56	Sulfur doping of AlN and AlGa _N for improved n-type conductivity. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015 , 9, 462-465	2.5	11
55	Quantum anomalous Hall effect in two-dimensional magnetic insulator heterojunctions. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	11
54	Controlling the Electronic Structures of Perovskite Oxynitrides and their Solid Solutions for Photocatalysis. <i>ChemSusChem</i> , 2016 , 9, 1027-31	8.3	11
53	Carbon-induced trapping levels in oxide dielectrics. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 01A120	2.9	10
52	In situ XPS study on atomic layer etching of Fe thin film using Cl ₂ and acetylacetone. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 051401	2.9	10
51	Alternative sources of p-type conduction in acceptor-doped ZnO. <i>Applied Physics Letters</i> , 2010 , 97, 0721124	3.4	10
50	Self-trapped holes in BaTiO ₃ . <i>Journal of Applied Physics</i> , 2018 , 124, 085703	2.5	10
49	Hybrid functional calculations of electronic structure and carrier densities in rare-earth monpnictides. <i>Physical Review B</i> , 2020 , 101,	3.3	9
48	Hydrogen passivation of impurities in Al ₂ O ₃ . <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 4149-539.5	9	
47	Hybrid-Functional Calculations of the Copper Impurity in Silicon. <i>Physical Review Applied</i> , 2017 , 8,	4.3	9
46	Carrier-Density-Induced Ferromagnetism in EuTiO ₃ Bulk and Heterostructures. <i>Physical Review Letters</i> , 2019 , 123, 127201	7.4	8
45	Interfacial Cation-Defect Charge Dipoles in Stacked TiO ₂ /AlO _x Gate Dielectrics. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 5140-5146	9.5	8
44	Energetics and optical properties of nitrogen impurities in SrTiO ₃ from hybrid density-functional calculations. <i>Physical Review B</i> , 2017 , 95,	3.3	8
43	Point-defect-mediated dehydrogenation of AlH ₃ . <i>Applied Physics Letters</i> , 2010 , 97, 201902	3.4	8
42	Carbon-nitrogen molecules in GaAs and GaP. <i>Physical Review B</i> , 2008 , 77,	3.3	8
41	Velocity saturation in La-doped BaSnO ₃ thin films. <i>Applied Physics Letters</i> , 2019 , 115, 092102	3.4	7
40	Weak antilocalization in quasi-two-dimensional electronic states of epitaxial LuSb thin films. <i>Physical Review B</i> , 2019 , 99,	3.3	7
39	Effects of La 5d and 4f states on the electronic and optical properties of LaAlO ₃ . <i>Physical Review B</i> , 2016 , 94,	3.3	7

38	The Particle-Size Dependence of the Activation Energy for Decomposition of Lithium Amide. <i>Angewandte Chemie</i> , 2011 , 123, 10352-10355	3.6	7
37	Approach to achieving a p-type transparent conducting oxide: Doping of bismuth-alloyed Ga ₂ O ₃ with a strongly correlated band edge state. <i>Physical Review B</i> , 2021 , 103,	3.3	7
36	Transport properties of KTaO ₃ from first-principles. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 065502	3.8	6
35	Identification of Microscopic Hole-Trapping Mechanisms in Nitride Semiconductors. <i>IEEE Electron Device Letters</i> , 2016 , 37, 154-156	4.4	6
34	The role of native defects in the transport of charge and mass and the decomposition of Li ₄ BN ₃ H ₁₀ . <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 25314-20	3.6	6
33	Stability and mobility of native point defects in AlH ₃ . <i>Journal of Alloys and Compounds</i> , 2011 , 509, S658-S661	3.6	6
32	Molecular Mechanism of Thermal Dry Etching of Iron in a Two-Step Atomic Layer Etching Process: Chlorination Followed by Exposure to Acetylacetone. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 7142-7154	3.8	6
31	Localized Strain Measurement in Molecular Beam Epitaxially Grown Chalcogenide Thin Films by Micro-Raman Spectroscopy. <i>ACS Omega</i> , 2020 , 5, 8090-8096	3.9	5
30	Theory and Modeling of Oxide Semiconductors. <i>Semiconductors and Semimetals</i> , 2013 , 88, 1-37	0.6	5
29	Alloying Effects in the γ Phase of Co-Based Superalloys 2012 , 683-693		5
28	Trivial to nontrivial topology transition in rare-earth pnictides with epitaxial strain. <i>Physical Review B</i> , 2020 , 102,	3.3	4
27	Cause of Extremely Long-Lasting Room-Temperature Persistent Photoconductivity in SrTiO ₃ and Related Materials. <i>Physical Review Letters</i> , 2020 , 125, 126404	7.4	4
26	Effects of biaxial stress and layer thickness on octahedral tilts in LaNiO ₃ . <i>Applied Physics Letters</i> , 2015 , 107, 261901	3.4	3
25	Dehydrogenation of AlH ₃ via the Vacancy Clustering Mechanism. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 12995-13002	3.8	3
24	Native Point Defects and Doping in ZnO 2011 , 113-134		3
23	Hydrogen in oxides and nitrides: unexpected physics and impact on devices. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010 , 15, 012001	0.4	3
22	Advances in Electronic Structure Methods for Defects and Impurities in Solids 2011 , 1-16		3
21	Formation of two-dimensional electron and hole gases at the interface of half-Heusler semiconductors. <i>Physical Review Materials</i> , 2019 , 3,	3.2	3

20	Small polaron-related recombination in Ba _x Sr _{1-x} TiO ₃ thin films by cathodoluminescence spectroscopy. <i>Applied Physics Letters</i> , 2016 , 108, 102901	3.4	3
19	Light and microwave driven spin pumping across FeGaBiSb interface. <i>Physical Review Materials</i> , 2021 , 5,	3.2	3
18	Strong band gap reduction in highly mismatched alloy InAlBiAs grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2019 , 126, 095704	2.5	2
17	Defects in Germanium 2015 , 1-23		2
16	Conductivity and transparency of TiO ₂ from first principles 2013 ,		2
15	Electrically active Er doping in InAs, In _{0.53} Ga _{0.47} As, and GaAs. <i>Applied Physics Letters</i> , 2012 , 101, 232103	3.4	2
14	Enabling visible-light absorption and p-type doping in In ₂ O ₃ by adding Bi. <i>Physical Review Materials</i> , 2019 , 3,	3.2	2
13	Electronic structure and small-hole polarons in YTiO ₃ . <i>Physical Review Materials</i> , 2020 , 4,	3.2	2
12	Insulator-Metal Transition in the Nd ₂ CoFeO ₆ Disordered Double Perovskite. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 22733-22742	3.8	2
11	Metal versus insulator behavior in ultrathin SrTiO ₃ -based heterostructures. <i>Physical Review B</i> , 2016 , 94,	3.3	2
10	Electronic correlations in the semiconducting half-Heusler compound FeVSb. <i>Physical Review B</i> , 2021 , 103,	3.3	2
9	Substrate-supported large-band-gap quantum spin Hall insulator based on III-V bismuth layers. <i>Physical Review B</i> , 2016 , 94,	3.3	1
8	LDA + U and Hybrid Functional Calculations for Defects in ZnO, SnO ₂ , and TiO ₂ 2011 , 155-164		1
7	First-principles calculations of optical transitions at native defects and impurities in ZnO 2018 ,		1
6	Impact of point defects on electrochromism in WO ₃ 2018 ,		1
5	Surprising stability of polar (001) surfaces of the Mott insulator GdTiO ₃ . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 063220	2.9	1
4	Structural Phase Transitions between Layered Indium Selenide for Integrated Photonic Memory.. <i>Advanced Materials</i> , 2022 , e2108261	24	1
3	Self-Catalyzed Sensitization of CuO Nanowires via a Solvent-free Click Reaction. <i>Langmuir</i> , 2020 , 36, 14539-14545	3.9	1

- | | | |
|---|---|-----|
| 2 | Electronic Structure Characterization of Hydrogen Terminated n-type Silicon Passivated by Benzoquinone-Methanol Solutions. <i>Coatings</i> , 2018 , 8, 108 | 2.9 |
| 1 | Electronic Properties of the Weyl Semimetals Co ₂ MnX (X=Si, Ge, Sn). <i>Physica Status Solidi - Rapid Research Letters</i> , 2100652 | 2.5 |