

Walter R L Lambrecht

List of Publications by Year in descending order

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268
papers

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24978

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281
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281
docs citations

281
times ranked

11642
citing authors

#	ARTICLE	IF	CITATIONS
1	Quasiparticle band structure calculation of monolayer, bilayer, and bulk MoS ₂ . Physical Review B, 2012, 85, .	1.1	1,127
2	Elastic constants and related properties of tetrahedrally bonded BN, AlN, GaN, and InN. Physical Review B, 1996, 53, 16310-16326.	1.1	670
3	Minimal basis sets in the linear muffin-tin orbital method: Application to the diamond-structure crystals C, Si, and Ge. Physical Review B, 1986, 34, 2439-2449.	1.1	434
4	Electronic band structure, phonons, and exciton binding energies of halide perovskites CsSnCl ₃ , CsSnBr ₃ , and CsSnI ₃ . Physical Review B, 2015, 91, 201101.	1.1	404
5	Efficient tabular method for the calculation of frequency-dependent second-order optical response in semiconductors. Physical Review B, 1998, 57, 3905-3919.	1.1	371
6	Electronic structure of rare-earth nitrides using the LSDA+U approach: Importance of allowing 4f orbitals to break the cubic crystal symmetry. Physical Review B, 2007, 75, .	1.1	332
7	Calculated elastic constants and deformation potentials of cubic SiC. Physical Review B, 1991, 44, 3685-3694.	1.1	290
8	Diamond nucleation by hydrogenation of the edges of graphitic precursors. Nature, 1993, 364, 607-610.	13.7	271
9	Valence-band ordering and magneto-optic exciton fine structure in ZnO. Physical Review B, 2002, 65, .	1.1	241
10	Second-harmonic generation of I-III-VI ₂ chalcopyrite semiconductors: Effects of chemical substitutions. Physical Review B, 2001, 63, .	1.1	237
11	Electronic and crystal structure of Cu ₂ S: Full-potential electronic structure calculations. Physical Review B, 2007, 76, .	1.1	210
12	Effective masses and valence-band splittings in GaN and AlN. Physical Review B, 1997, 56, 7363-7375.	1.1	226
13	Valence-band discontinuity between GaN and AlN measured by x-ray photoemission spectroscopy. Applied Physics Letters, 1994, 65, 610-612.	1.5	212
14	Electronic structure of GaN with strain and phonon distortions. Physical Review B, 1994, 50, 1502-1505.	1.1	198
15	Theoretical study of the relative stability of wurtzite and rocksalt phases in MgO and GaN. Physical Review B, 2001, 63, .	1.1	168
16	Stacking fault band structure in 4H-SiC and its impact on electronic devices. Applied Physics Letters, 2001, 79, 4360-4362.	1.5	162
17	High field electron transport properties of bulk ZnO. Journal of Applied Physics, 1999, 86, 6864-6867.	1.1	160
18	Electronic structure and optical spectra of the semimetal ScAs and of the indirect-band-gap semiconductors ScN and GdN. Physical Review B, 2000, 62, 13538-13545.	1.1	159

#	ARTICLE	IF	CITATIONS
19	Self-consistent dipole theory of heterojunction band offsets. Physical Review B, 1990, 41, 2813-2831.	1.1	148
20	Homogeneous Strain Deformation Path for the Wurtzite to Rocksalt High-Pressure Phase Transition in GaN. Physical Review Letters, 2001, 86, 91-94.	2.9	140
21	First-principles calculation of the O vacancy in ZnO: A self-consistent gap-corrected approach. Physical Review B, 2008, 77, .	1.1	137
22	Quasiparticle band structure of Zn-IV-N compounds. Physical Review B, 2011, 84, .	1.1	134
23	Electronic band structure trends of perovskite halides: Beyond Pb and Sn to Ge and Si. Physical Review B, 2016, 93, .	1.1	130
24	Rare-earth mononitrides. Progress in Materials Science, 2013, 58, 1316-1360.	16.0	124
25	Electronic structure of rare-earth pnictides. Physical Review B, 1996, 53, 4324-4339.	1.1	119
26	Electronic structure and bonding at SiC/AlN and SiC/BP interfaces. Physical Review B, 1991, 43, 7070-7085.	1.1	116
27	Total energy differences between SiC polytypes revisited. Physical Review B, 1998, 57, 12017-12022.	1.1	106
28	Electronic structure and properties of NiSi ₂ and CoSi ₂ in the fluorite and adamantane structures. Physical Review B, 1987, 36, 2493-2503.	1.1	105
29	Anomalous band-gap behavior and phase stability of c-BN "diamond alloys. Physical Review B, 1993, 47, 9289-9296.	1.1	105
30	Electronic structure and equilibrium properties of Ga _x Al _{1-x} alloys. Physical Review B, 1993, 48, 17841-17847.	1.1	103
31	X-ray photoelectron spectroscopy and theory of the valence band and semicore Ga 3d states in GaN. Physical Review B, 1994, 50, 14155-14160.	1.1	101
32	Atomic-Scale Spin-Polarized Scanning Tunneling Microscopy Applied to Mn ₃ N ₂ (010). Physical Review Letters, 2002, 89, 226101.	2.9	100
33	Electronic band structure of ordered vacancy defect chalcopyrite compounds with formula III ₂ VI ₄ . Physical Review B, 2004, 69, .	1.1	96
34	Charge-neutral disorder and polytypes in heterovalent wurtzite-based ternary semiconductors: The importance of the octet rule. Physical Review B, 2015, 91, .	1.1	95
35	Band offsets between ZnGeN ₂ , GaN, ZnO, and ZnSn ₂ and their potential impact for solar cells. Physical Review B, 2013, 88, .	1.1	89
36	Second-harmonic generation and birefringence of some ternary pnictide semiconductors. Physical Review B, 1999, 59, 2737-2748.	1.1	87

#	ARTICLE	IF	CITATIONS
37	Pressure-dependent elastic constants and sound velocities of wurtzite SiC, GaN, InN, ZnO, and CdSe, and their relation to the high-pressure phase transition: A first-principles study. Physical Review B, 2010, 82, .	1.1	87
38	Magnetic properties of substitutional 3d transition metal impurities in silicon carbide. Physical Review B, 2003, 68, .	1.1	80
39	Ferromagnetic redshift of the optical gap in GdN. Physical Review B, 2007, 76, .	1.1	79
40	First-principles calculations of elasticity, polarization-related properties, and nonlinear optical coefficients in Zn-IV- $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mtext} \rangle \text{N} \langle \text{mml:mtext} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math}$	1.1	78
41	UV reflectivity of GaN: Theory and experiment. Physical Review B, 1995, 51, 13516-13532.	1.1	76
42	First-principles study of phonons and related ground-state properties and spectra in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mtext} \rangle \text{Zn-IV-N} \langle \text{mml:mtext} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math}$	1.1	76
43	Electronic structure of (diamond C)/(sphalerite BN) (110) interfaces and superlattices. Physical Review B, 1989, 40, 9909-9919.	1.1	74
44	Lattice dynamics in perovskite halides $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" \rangle \langle \text{mml:mi} \text{mathvariant="normal"} \rangle \text{CsSn} \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{X} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle \text{with} \langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" \rangle \langle \text{mml:mi} \text{mathvariant="normal"} \rangle \text{I} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle, \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{Å} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \text{mathvariant="normal"} \rangle \text{Br} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle, \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{Å} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \text{mathvariant="nor$	1.1	73
45	Tight-binding muffin-tin orbital Green's function method for surface and interface electronic structure calculations. Surface Science, 1986, 178, 256-263.	0.8	72
46	Application of generalized gradient-corrected density functionals to iron. Physical Review B, 1992, 46, 1870-1873.	1.1	72
47	Electronic structure of CrN: A borderline Mott insulator. Physical Review B, 2009, 79, .	1.1	71
48	Single crystal V2O5 and lower oxides. A survey of their electronic, optical, structural, and surface properties. Physica Status Solidi A, 1980, 59, 485-504.	1.7	70
49	Universal Transition State for High-Pressure Zinc Blende to Rocksalt Phase Transitions. Physical Review Letters, 2005, 94, 225501.	2.9	68
50	Interstitial-nitrogen- and oxygen-induced magnetism in Gd-doped GaN. Physical Review B, 2009, 80, .	1.1	65
51	Band structure parameters of wurtzite and zinc-blende GaAs under strain in the GW approximation. Physical Review B, 2011, 84, .	1.1	63
52	Interface-bond-polarity model for semiconductor heterojunction band offsets. Physical Review B, 1990, 41, 2832-2848.	1.1	61
53	Electronic structure of wide-band-gap ternary pnictides with the chalcopyrite structure. Physical Review B, 1994, 49, 4549-4558.	1.1	61
54	Band-structure analysis of the conduction-band mass anisotropy in 6H and 4HSiC. Physical Review B, 1995, 52, R2249-R2252.	1.1	61

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55	Calculated and measured uv reflectivity of SiC polytypes. Physical Review B, 1994, 50, 10722-10726.	1.1	60
56	First-principles study of the preference for zinc-blende or rocksalt structures in FeN and CoN. Physical Review B, 2004, 70, .	1.1	60
57	Electronic structure of Gd pnictides calculated within theLSDA+Uapproach. Physical Review B, 2006, 74, .	1.1	60
58	Electronic structure and magnetic interactions in MnN andMn3N2. Physical Review B, 2003, 68, .	1.1	57
59	Electronic structure and magnetism in BiMn_2 . Physical Review B, 2008, 78, .	1.1	57
60	Valence band structure of polytypic zinc-blende/wurtzite GaAs nanowires probed by polarization-dependent photoluminescence. Physical Review B, 2012, 85, .	1.1	57
61	Electronic and lattice dynamical properties of II-VI semiconductors. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2492-2499.	0.8	56
62	Optical-absorption bands in the 1-3 eV range inn-type SiC polytypes. Physical Review B, 1999, 59, 12890-12899.	1.1	54
63	Theory of Semiconductor Heterojunction Valence-Band Offsets: From Supercell Band-Structure Calculations toward a Simple Model. Physical Review Letters, 1988, 61, 1764-1767.	2.9	53
64	Electronic driving force for stacking fault expansion in 4H-SiC . Physical Review B, 2006, 73, .	1.1	53
65	Strain effects on the spin-orbit-induced band structure splittings in monolayer MoS ₂ and graphene. Physical Review B, 2013, 88, .	1.1	52
66	Unified path for high-pressure transitions of SiC polytypes to the rocksalt structure. Physical Review B, 2003, 68, .	1.1	51
67	Electronic structure and magnetic properties of transition-metal-doped3Cand4Hsilicon carbide. Physical Review B, 2006, 74, .	1.1	50
68	Optical reflectivity of 3C and 4H-SiC polytypes: Theory and experiment. Applied Physics Letters, 1993, 63, 2747-2749.	1.5	49
69	Electronic structure and magnetism of europium chalcogenides in comparison with gadolinium nitride. Journal of Physics Condensed Matter, 2006, 18, 11333-11345.	0.7	49
70	Graphitization Effects on Diamond Surfaces and the Diamond/Graphite Interface. Physica Status Solidi A, 1996, 154, 109-125.	1.7	48
71	Proton irradiation induced defects in $\hat{\Gamma}^2\text{-Ga}_2\text{O}_3$: A combined EPR and theory study. APL Materials, 2019, 7, .	2.2	48
72	Second-harmonic generation in SiC polytypes. Physical Review B, 1998, 57, 9705-9715.	1.1	47

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73	Comparison between experiment and calculated band structures for DyN and SmN. Physical Review B, 2007, 76, .	1.1	47
74	Electronic structure of dense amorphous carbon. Physical Review B, 1994, 49, 11448-11451.	1.1	46
75	Electronic band structure of MgN compounds in the quasiparticle-self-consistent GW approximation. Physical Review B, 2016, 94, .	1.1	46
76	The energy band structure of V_2O_5 . I. Theoretical approach and band calculations. Journal of Physics C: Solid State Physics, 1980, 13, 2485-2500.	1.5	45
77	Valence band effective-mass Hamiltonians for the group-III nitrides from quasiparticle self-consistent GW band structures. Physical Review B, 2012, 85, .	1.1	45
78	Native point defects and doping in $ZnGeN_2$. Physical Review B, 2016, 93, .	1.1	45
79	Mn-doped ScN : A dilute ferromagnetic semiconductor with local exchange coupling. Physical Review B, 2005, 72, .	1.1	44
80	Quasiparticle self-consistent GW approximation of the electronic band structure of bulk and monolayer V_2O_5 . Physical Review B, 2016, 94, .	1.1	43
81	Disorder effects on the band structure of $ZnGeN_2$. Role of exchange defects. Physical Review B, 2016, 94, .	1.1	43
82	Pressure dependence of sound velocities in $3CaSiC$ and their relation to the high-pressure phase transition. Physical Review B, 2002, 66, .	1.1	42
83	Electronic structure and magnetism of the semimetals $ErAs$ and $Er_xSc_{1-x}As$. Physical Review B, 1994, 50, 7800-7804.	1.1	40
84	X-ray absorption, glancing-angle reflectivity, and theoretical study of the N K- and Ga $M_{2,3}$ -edge spectra in GaN. Physical Review B, 1997, 55, 2612-2622.	1.1	40
85	Changes of the geometry and band structure of SiC along the orthorhombic high-pressure transition path between the zinc-blende and rocksalt structures. Physical Review B, 2002, 66, .	1.1	40
86	Stability and half-metallicity of transition metal pnictides in tetrahedrally bonded structures. Physical Review B, 2005, 71, .	1.1	40
87	Vibrational modes in $ZnGeN_2$. Raman study and theory. Physical Review B, 2008, 77, .	1.1	39
88	Which electronic structure method for the study of defects: A commentary. Physica Status Solidi (B): Basic Research, 2011, 248, 1547-1558.	0.7	39
89	Heteroepitaxy of diamond on c-BN: Growth mechanisms and defect characterization. Journal of Materials Research, 1994, 9, 1849-1865.	1.2	38
90	Structure and phonons of $ZnGeN_2$. Physical Review B, 2005, 72, .	1.1	38

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91	Magnetic exchange interactions in the gadolinium pnictides from first principles. Physical Review B, 2008, 78, .	1.1	38
92	First-principles study of the elasticity, piezoelectricity, and vibrational modes in LiGaO_2 with ZnO and GaN. Physical Review B, 2010, 81, .	1.1	38
93	Electronic structure of EuN: Growth, spectroscopy, and theory. Physical Review B, 2011, 84, .	1.1	38
94	Computational identification of Ga-vacancy related electron paramagnetic resonance centers in Ga_2O_3 . Journal of Applied Physics, 2019, 125, .	1.1	38
95	Electronic structure of ZnGeP ₂ : A detailed study of the band structure near the fundamental gap and its associated parameters. Physical Review B, 1999, 60, 8087-8096.	1.1	37
96	Calculated phonon band structure and density of states and interpretation of the Raman spectrum in rocksalt ScN. Physical Review B, 2009, 79, .	1.1	36
97	On the origin of the split-off conduction bands in V ₂ O ₅ . Journal of Physics C: Solid State Physics, 1981, 14, 4785-4795.	1.5	35
98	Magnetic properties of transition-metal nitrides. Journal of Applied Physics, 2005, 97, 10D306.	1.1	35
99	Identification of Raman-active phonon modes in oriented platelets of InN and polycrystalline InN. Solid State Communications, 2000, 114, 355-360.	0.9	33
100	Identification of a N-related shallow acceptor and electron paramagnetic resonance center in ZnO: N. GW^2 band structures for SrTiO_3 including lattice polarization corrections in different phases. Physical Review Materials, 2016, 2, .	1.1	33
101	Structure and magnetic properties of MnN, CrN, and VN under volume expansion. Physical Review B, 2005, 71, .	1.1	32
102	Vibrational properties of rare-earth nitrides: Raman spectra and theory. Physical Review B, 2009, 79, .	1.1	32
103	All-electron quasiparticle self-consistent GW^2 band structures for SrTiO_3 including lattice polarization corrections in different phases. Physical Review Materials, 2016, 2, .	0.9	32
104	Electronic-structure study of the (110) inversion domain boundary in SiC. Physical Review B, 1990, 41, 2948-2958.	1.1	30
105	Noncritically phase-matched second-harmonic-generation chalcopyrites based on CdSiAs ₂ and CdSiP ₂ . Physical Review B, 2004, 70, .	1.1	30
106	V_2O_5 : A 2D van der Waals Oxide with Strong In-Plane Electrical and Optical Anisotropy. ACS Applied Materials & Interfaces, 2017, 9, 23949-23956.	4.0	30
107	Internal strain effects on the phase diagram of Ni-Pt alloys. Physical Review B, 1993, 47, 15276-15279.	1.1	29
108	Effects of biaxial strain on stability and half-metallicity of Cr and Mn pnictides and chalcogenides in the zinc-blende structure. Physical Review B, 2005, 72, .	1.1	29

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109	The energy band structure of V2O5. II. Analysis of the theoretical results and comparison with experimental data. <i>Journal of Physics C: Solid State Physics</i> , 1980, 13, 2503-2517.	1.5	28
110	Electronic band structure of graphene from resonant soft x-ray spectroscopy: The role of core-hole effects. <i>Physical Review B</i> , 2012, 86, .	1.1	28
111	Lattice polarization effects on the screened Coulomb interaction $\langle W \rangle$ of the $\langle G \rangle$ approximation. <i>Physical Review Materials</i> , 2017, 1, .	0.9	28
112	Electronic structure of BeCN2: A proposed nearly direct wide-band-gap semiconductor. <i>Physical Review B</i> , 1992, 45, 1485-1487.	1.1	27
113	Theoretical study of cation-related point defects in ZnGeP2. <i>Physical Review B</i> , 2005, 71, .	1.1	27
114	Quasiparticle self-consistent $\langle GW \rangle$ band structure of $\langle \hat{I}^2 \rangle$ -Ga2O3 and the anisotropy of the absorption onset. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	27
115	Band Gaps, Band Offsets, Disorder, Stability Region, and Point Defects in $\langle \text{II-VI} \rangle_2$ Semiconductors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800875.	0.8	27
116	Spin-dependent resonant tunneling through semimetallic ErAs quantum wells in a magnetic field. <i>Physical Review B</i> , 1996, 53, 3646-3649.	1.1	26
117	Band structure of CdGeAs2 near the fundamental gap. <i>Physical Review B</i> , 2002, 65, .	1.1	26
118	Comment on "Orthonhombic Intermediate State in the Zinc Blende to Rocksalt Transformation Path of SiC at High Pressure" <i>Physical Review Letters</i> , 2002, 88, 189601; discussion 189602.	2.9	26
119	Critical evaluation of the LDA+U approach for band gap corrections in point defect calculations: The oxygen vacancy in ZnO case study. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 1043-1051.	0.7	26
120	Phonons and related spectra in bulk and monolayer $\langle V_2 O_5 \rangle$. <i>Physical Review B</i> , 2014, 89, .	1.1	26
121	Atomic-resolved depth profile of strain and cation intermixing around LaAlO3/SrTiO3 interfaces. <i>Scientific Reports</i> , 2016, 6, 28118.	1.6	26
122	Distortion modes in halide perovskites: To twist or to stretch, a matter of tolerance and lone pairs. <i>Physical Review Materials</i> , 2018, 2, .	0.9	26
123	Electronic structure of copper/diamond interfaces including effects of interfacial hydrogen. <i>Physica B: Condensed Matter</i> , 1993, 185, 512-527.	1.3	25
124	Deep level defects and cation sublattice disorder in ZnGeN2. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	24
125	First-principles calculation of the zone center phonons in $\langle ZnSi_2 N_2 \rangle$: Comparison with infrared data. <i>Physical Review B</i> , 2007, 76, .	1.1	23
126	Superparamagnetism in Gd-doped GaN induced by Ga-vacancy clustering. <i>Physical Review B</i> , 2012, 86, .	1.1	23

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127	Electronic structure and total energy of diamond/BeO interfaces. Journal of Materials Research, 1992, 7, 696-705.	1.2	22
128	"Wrong" Bond Interactions at Inversion Domain Boundaries in GaAs. Physical Review Letters, 1992, 68, 1363-1366.	2.9	22
129	Electronic structure of 3C inclusions in 4H SiC. Journal of Applied Physics, 2007, 101, 103711.	1.1	22
130	Calculated interband optical transition spectra of GdN. Physical Review B, 2008, 78, .	1.1	22
131	Electronic band structure information of GdN extracted from x-ray absorption and emission spectroscopy. Applied Physics Letters, 2010, 96, 032101.	1.5	22
132	Optoelectronic Dichotomy of Mixed Halide CH ₃ NH ₃ Pb(Br _{1-x} Cl _x) ₃ Single Crystals: Surface versus Bulk Photoluminescence. Journal of the American Chemical Society, 2018, 140, 11811-11819.	6.6	22
133	Buckled honeycomb antimony: Higher order topological insulator and its relation to the Kekulé lattice. Physical Review B, 2020, 102, .	1.1	22
134	Analysis of core-level shifts in some metallic Ni compounds. Physical Review B, 1986, 34, 7421-7424.	1.1	21
135	First-principles Study of Nitrogen Vacancies in GdN. Materials Research Society Symposia Proceedings, 2011, 1290, 1.	0.1	21
136	Electronic structure of defects and doping in ZnO: Oxygen vacancy and nitrogen doping. Physica Status Solidi (B): Basic Research, 2013, 250, 2091-2101.	0.7	21
137	First-principles study of point defects in LiGaO ₂ . Journal of Applied Physics, 2019, 126, .	1.1	21
138	Effects of the van der Waals Interactions on Structural and Electronic Properties of CH ₃ NH ₃ (Pb,Sn)(I,Br,Cl) ₃ Halide Perovskites. ACS Omega, 2020, 5, 25723-25732.	1.6	21
139	Electronic and Optical Properties of the Group-III Nitrides, their Heterostructures and Alloys. Materials Research Society Symposia Proceedings, 1995, 395, 455.	0.1	20
140	Theoretical evaluation of LiGaO ₂ for frequency upconversion to ultraviolet. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 2217.	0.9	20
141	Strong enhancement of second-order response coefficients in tellurium containing Ag ^{III} VI ₂ compounds. Applied Physics Letters, 2000, 77, 190-192.	1.5	20
142	First-principles calculations of second-order optical response functions in chalcopyrite semiconductors. Journal of Physics and Chemistry of Solids, 2003, 64, 1615-1619.	1.9	20
143	Electronic structure of Be ₂ C. Physical Review B, 1995, 51, 10392-10398.	1.1	19
144	Spin-orbit effects on the band structure and Fermi surface of ErAs and Er _x Sc _{1-x} As. Physical Review B, 1997, 55, 9239-9242.	1.1	19

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145	Nanometer-scale investigation of metal-SiC interfaces using ballistic electron emission microscopy. Journal of Electronic Materials, 1998, 27, 345-352.	1.0	19
146	Electronic structure of thin heterocrystalline superlattices in SiC and AlN. Physical Review B, 2003, 68, .	1.1	19
147	Electronic structure and magnetic properties of Mn ₃ GaN precipitates in Ga _{1-x} MnxN. Physical Review B, 2005, 72, .	1.1	19
148	Theoretical study of the phosphorus vacancy in ZnGeP ₂ . Physical Review B, 2006, 73, .	1.1	19
149	XPS Measurement of the SiC/AlN Band-Offset at the (0001) Interface. Materials Research Society Symposia Proceedings, 1995, 395, 375.	0.1	18
150	Investigation of the stability of the hexagonal-cubic born nitride prism interface. Journal of Materials Chemistry, 1996, 6, 899-901.	6.7	18
151	Electronic structure, Schottky barrier, and optical spectra of the SiC/TiC {111} interface. Physical Review B, 1997, 55, 16472-16486.	1.1	18
152	Linear response theoretical study of the exchange interactions in Mn-doped ScN: Effects of disorder, band gap, and doping. Physical Review B, 2008, 77, .	1.1	18
153	Electronic structure of defects and doping in ZnO: Oxygen vacancy and nitrogen doping. Physica Status Solidi (B): Basic Research, 2013, 250, .	0.7	18
154	Optical response and band structure of LiCoO_2 including electron-hole interaction effects. Physical Review B, 2021, 104, .	1.1	17
155	Efficient direct calculation method for dielectric response in semiconductors. Physical Review B, 1989, 40, 7793-7801.	1.1	17
156	Interface dependence of band offsets in lattice-matched isovalent heterojunctions. Physical Review B, 1990, 41, 8353-8358.	1.1	17
157	Electronic Structure and Optical Properties of ZnGeN ₂ . MRS Internet Journal of Nitride Semiconductor Research, 1999, 4, 600-605.	1.0	17
158	Effects of structural relaxation, interdiffusion, and surface termination on two-dimensional electron gas formation at the $\text{LaAlO}_3/\text{SrTiO}_3$ interface. Physical Review B, 2015, 92, .	1.1	17
159	Core-level binding energy shifts as a tool to study surface processes on $\text{LaAlO}_3/\text{SrTiO}_3$. Journal of Electron Spectroscopy and Related Phenomena, 2017, 218, 21-29.	0.8	17
160	Computational study of electron paramagnetic resonance parameters for Mg and Zn impurities in $\text{I}^2\text{-Ga}_2\text{O}_3$. Applied Physics Letters, 2019, 114, 202102.	1.5	17
161	Ultrathin 2D-oxides: A perspective on fabrication, structure, defect, transport, electron, and phonon properties. Journal of Applied Physics, 2021, 129, .	1.1	17
162	Electronic Structure of Diamond, Silicon Carbide, and the Group-III Nitrides. Materials Research Society Symposia Proceedings, 1994, 339, 565.	0.1	16

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163	Systematic study of the exchange interactions in Gd-doped GaN containing N interstitials, O interstitials, or Ga vacancies. <i>Physical Review B</i> , 2015, 92, .	1.1	16
164	Topological band structure transitions and goniopolar transport in honeycomb antimonene as a function of buckling. <i>Physical Review B</i> , 2020, 101, .	1.1	16
165	Heterovalent ternary II-IV-N ₂ compounds: perspectives for a new class of wide-band-gap nitrides. , 2013, , 519-585.		16
166	Crystal structure, electronic structure and magnetism of transition metal nitrides. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 2516-2519.	0.8	15
167	Vibrational spectra and nonlinear optical coefficients of rhombohedral compounds with $CsGeX$ compounds $CsGeX$. <i>Physical Review B</i> , 2016, 94, .	1.1	15
168	Quasiparticle self-consistent band structure of GdW band structure of GdW $Cd-IV-N_2$ $Cd-IV-N_2$. <i>Physical Review Materials</i> , 2017, 1, .	0.9	15
169	Schottky barrier formation at ErAs/GaAs interfaces: a case of Fermi level pinning by surface states. <i>Solid State Communications</i> , 1998, 108, 361-365.	0.9	14
170	Computational study of phonon modes in short-period AlN/GaN superlattices. <i>Physical Review B</i> , 2009, 80, .	1.1	14
171	Carrier-controlled anomalous Hall effect in an intrinsic ferromagnetic semiconductor. <i>Physical Review B</i> , 2017, 96, .	1.1	14
172	First-principles study of n- and p-type doping opportunities in LiGaO ₂ . <i>Journal Physics D: Applied Physics</i> , 2020, 53, 274002.	1.3	14
173	Valence-band discontinuity between GaN and AlN measured by x-ray photoemission spectroscopy. <i>Journal of Electronic Materials</i> , 1995, 24, 225-227.	1.0	13
174	First-principles study of oxygen vacancies in Mg_x Mg_x . <i>Physical Review B</i> , 2010, 81, .	1.1	13
175	First-principles calculations of phonons and Raman spectra in monoclinic $CsSnCl_3$ $CsSnCl_3$. <i>Physical Review B</i> , 2015, 91, .	1.1	13
176	Electronic structure of the vanadyl oxygen vacancy in V ₂ O ₅ : periodic vacancy single layer model. <i>Solid State Communications</i> , 1981, 39, 257-261.	0.9	12
177	Pseudopotential linear response method for core hole screening in metals. <i>Solid State Communications</i> , 1985, 56, 1073-1076.	0.9	12
178	Theoretical study of the vanadyl-oxygen vacancy in V ₂ O ₅ : tight-binding Green function calculation, optical properties and neutral vacancy ground-state splitting. <i>Journal of Physics C: Solid State Physics</i> , 1986, 19, 369-388.	1.5	12
179	Elastic Constants and Related Properties of the Group III-Nitrides. <i>Materials Research Society Symposia Proceedings</i> , 1995, 395, 399.	0.1	11
180	Molecular-dynamics study of diamond/silicon (001) interfaces with and without graphitic interface layers. <i>Physical Review B</i> , 1997, 56, 1568-1580.	1.1	11

#	ARTICLE	IF	CITATIONS
181	Anisotropy of UV-reflectivity in wurtzite crystals: a comparison between GaN and CdSe. Solid State Communications, 2002, 121, 549-554.	0.9	11
182	Optical conductivity and x-ray absorption and emission study of the band structure of MnN films. Physical Review B, 2005, 72, .	1.1	11
183	Quasiparticle Self-Consistent GW Study of $(\text{Ga}_{1-x}\text{Al}_x)_2\text{O}_3$ Alloys in Monoclinic and Corundum Structures. Physica Status Solidi (B): Basic Research, 2020, 257, 1900317.	0.7	11
184	Band alignment of III-N, ZnO and IV-N ₂ semiconductors from the electron affinity rule. Journal Physics D: Applied Physics, 2020, 53, 015111.	1.3	11
185	Electrical Characterization and Charge Transport in Chemically Exfoliated 2D Li _x CoO ₂ Nanoflakes. Journal of Physical Chemistry C, 2020, 124, 20693-20700.	1.5	11
186	Quasiparticle self-consistent band structures and high-pressure phase transitions of LiGaO ₂ and		
187	GaN alloy system: Crystal structures and band structures of ZnGeGa ₂ from first principles. Physical Review Materials, 2018, 2, .	0.9	11
188	On the relation between XPS and AES relaxation energies in metals. Journal of Electron Spectroscopy and Related Phenomena, 1987, 42, 161-169.	0.8	10
189	Effects of vacancies and impurities on the relative stability of rocksalt and zincblende structures for MnN. Physical Review B, 2007, 76, .	1.1	10
190	First-principles study of native defects in CdGeAs ₂ . Physical Review B, 2008, 78, .	1.1	10
191	The influence of hydrogen saturation on the local densities of states in small Si, Ge AND GaAs clusters. Surface Science, 1981, 106, 498-508.	0.8	9
192	Electronic structure of SiC/TiC interfaces. Acta Metallurgica Et Materialia, 1992, 40, S17-S24.	1.9	9
193	Structural studies and electronic properties of diamond-like amorphous carbon. Journal of Non-Crystalline Solids, 1993, 164-166, 1131-1134.	1.5	9
194	Theory of light emission polarization reversal in zinc-blende and wurtzite nanowires. Physical Review B, 2014, 89, .	1.1	9
195	Structural and magnetic properties of electron-doped NaV ₅ O ₁₅ . Physical Review B, 2015		9
196	Raman study of the vibrational modes in ZnGeN ₂ (0001). Journal of Applied Physics, 2017, 121, .	1.1	9
197	Role of the different defects, their population and distribution in the LaAlO ₃ /SrTiO ₃ heterostructure's behavior. Journal of Applied Physics, 2018, 123, .	1.1	9
198	Candidates for p-type doping of ZnGeN ₂ . Journal of Applied Physics, 2020, 127, 075707.	1.1	9

#	ARTICLE	IF	CITATIONS
199	First-principles calculation of resonant x-ray emission spectra applied to ZnO. Physical Review B, 2011, 83, .	1.1	8
200	First-principles calculations of phonons and Raman and infrared spectra in Cd-IV-N2 compounds. Journal of Applied Physics, 2018, 123, .	1.1	8
201	Quasiparticle self-consistent $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \text{G} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{W} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{CrN}$. Physical Review B, 2020, 101, .		
202	Electron microscopy and spectroscopic study of structural changes, electronic properties, and conductivity in annealed $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{Li} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{x} \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{CrN}$. Physical Review Materials, 2021, 5, .	0.9	8
203	Band Structure and Cation Ordering in LiGaO ₂ . Materials Research Society Symposia Proceedings, 1996, 449, 905.	0.1	7
204	Characterization Of Bulk, Polycrystalline Indium Nitride Grown At Sub-Atmospheric Pressures. Materials Research Society Symposia Proceedings, 1997, 482, 593.	0.1	7
205	Recent advances in atomic-scale spin-polarized scanning tunneling microscopy. Microscopy Research and Technique, 2005, 66, 72-84.	1.2	7
206	Computational study of electron paramagnetic resonance spectra for Li and Ga vacancies in LiGaO ₂ . Journal Physics D: Applied Physics, 2020, 53, 17LT01.	1.3	7
207	Native interstitial defects in $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{ZnGeN} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{CrN}$. Physical Review Materials, 2017, 1, .	1.1	7
208	Unoccupied electronic resonances of Sc adsorbed on W(001) byk-resolved inverse photoemission. Physical Review B, 1995, 51, 1803-1808.	1.1	6
209	Band-gap bowing in $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \text{mathvariant="normal"} \rangle \text{Ag} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \text{mathvariant="normal"} \rangle \text{Ga} \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \langle \text{mml:mo} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{Tj ETQq1 1 0.784314 rgB}$. Physical Review B, 2007, 76, .	1.1	6
210	Electronic structure, doping, and lattice dynamics of LiGaO 2. Proceedings of SPIE, 2011, , .	0.8	6
211	Single well or double well: First-principles study of $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \text{H} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle \text{and } 3 \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \text{C} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle \text{inclusions in the } 4 \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \text{H} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$. Physical Review B, 2016, 93, 085108.	1.1	6
212	Vibrational modes in the Pmc21 structure of ZnGeN2. Solid State Communications, 2016, 233, 46-49.	0.9	6
213	Metalâ€“Organic Chemical Vapor Deposition of ZnGeGa ₂ N ₄ . Crystal Growth and Design, 2020, 20, 189-196.	1.4	6
214	Experimental determination of the valence band offsets of ZnGe _{0.94} Ga _{0.12} N ₂ with GaN. Journal Physics D: Applied Physics, 2021, 54, 245102.	1.3	6
215	Silicon valence band auger spectrum : A cluster approach. Solid State Communications, 1980, 33, 267-272.	0.9	5
216	The effects of biaxial strain on stability and half-metallicity of zinc blende CrSb. Journal of Applied Physics, 2005, 97, 10C304.	1.1	5

#	ARTICLE	IF	CITATIONS
217	Nitrogen pair $\hat{\alpha}$ hydrogen complexes in ZnO and p-type doping.. Materials Research Society Symposia Proceedings, 2012, 1394, 27.	0.1	5
218	Fully opposite spin polarization of electron and hole bands in DyN and related band structures of GdN and HoN. Physical Review B, 2015, 92, .	1.1	5
219	Instability of the layered orthorhombic post-perovskite phase of SrTiO ₃ and other candidate orthorhombic phases under pressure. Solid State Communications, 2018, 274, 27-30.	0.9	5
220	Band Gaps and Stability of CsSiX ₃ Halides. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800962.	0.8	5
221	Core-Hole Screening in Small Metallic Particles as a Function of Core-Hole Position. Physica Status Solidi (B): Basic Research, 1985, 129, K69.	0.7	4
222	Theoretical Studies of ZnO and Related Mg _x Zn _{1-x} O Alloy Band Structures. MRS Internet Journal of Nitride Semiconductor Research, 1999, 4, 582-587.	1.0	4
223	Large band-gap bowing in $\text{Cu}_{1-x}\text{Ag}_x\text{Ga}_{1-x}\text{Mn}_x$ chalcopyrite	1.1	4
224	CdGe ₂ and ZnGe _{0.5} Sn _{0.5} N ₂ : Two New Nitride Semiconductors with Band Gaps in the Blue-Green. Materials Science Forum, 0, 717-720, 1331-1334.	0.3	4
225	First-principles calculations of elastic and piezoelectric constants and spontaneous polarization in Cd-IV-N ₂ compounds. Journal of Applied Physics, 2018, 124, .	1.1	4
226	Quasiparticle self-consistent $\langle i \rangle \text{GW} \langle /i \rangle$ electronic band structures of Be-IV-N ₂ compounds. Journal of Physics Condensed Matter, 2019, 31, 335501.	0.7	4
227	Calculated phonon modes, infrared, and Raman spectra in ZnGeGa ₂ N ₄ . Journal of Applied Physics, 2020, 128, 075702.	1.1	4
228	Calculated phonon modes, infrared and Raman spectra in orthorhombic $\langle i \rangle \hat{\Gamma}_2 \langle /i \rangle \hat{\alpha} \text{MoO}_3$ and monolayer MoO ₃ . Journal of Applied Physics, 2021, 130, .	1.1	4
229	Molecular model for interstitial impurities in V ₂ O ₅ . Solid State Communications, 1981, 38, 879-882.	0.9	3
230	Theoretical Study of Group-III-Nitride Alloys. Materials Research Society Symposia Proceedings, 1996, 449, 929.	0.1	3
231	Theory of Below Gap Absorption Bands in n-Type SiC Polytypes; Or, how SiC got its Colors. Materials Science Forum, 2000, 338-342, 545-550.	0.3	3
232	First-principles study of the structural and magnetic properties of iron indium nitride. Journal of Applied Physics, 2005, 97, 10D309.	1.1	3
233	Bond lengths, phase stability, and band gaps in Mg _x Zn _{1-x} O alloys. Journal of Vacuum Science & Technology B, 2009, 27, 1717.	1.3	3
234	Understanding the Crystallographic Phase Relations in Alkali-Trihalogeno-Germanates in Terms of Ferroelectric or Antiferroelectric Arrangements of the Tetrahedral GeX ₃ Units. Advanced Electronic Materials, 2020, 6, 1900887.	2.6	3

#	ARTICLE	IF	CITATIONS
235	First-principles study of the phonon replicas in the photoluminescence spectrum of 4H -SiC. Physical Review B, 2020, 101, .	1.1	3
236	Topological obstructed atomic limit insulators by annihilating Dirac fermions. Physical Review B, 2021, 103, .	1.1	3
237	Spin-polarized two-dimensional electron/hole gases on LiCoO ₂ layers.. SciPost Physics, 2021, 10, .	1.5	3
238	First-principles calculations of second-order nonlinear optical coefficients in the static limit and Pockels coefficients in III-N and II ^{VI} compounds. Physical Review Materials, 2018, 2, .	0.9	3
239	Core Hole Relaxation Energy in Semiconductors. Using a Pseudopotential Description of the Core Hole Perturbation. Physica Status Solidi (B): Basic Research, 1989, 151, 565-570.	0.7	2
240	Tight-Binding Linear Muffin-Tin Orbital Implementation of the Difference Equation Green's Function Approach for 2D-Periodic Systems. Materials Research Society Symposia Proceedings, 1997, 491, 137.	0.1	2
241	Electronic Structure and Optical Properties of ZnGeN ₂ . Materials Research Society Symposia Proceedings, 1998, 537, 1.	0.1	2
242	Band Structure Interpretation of the Optical Transitions between Low-Lying Conduction Bands in n-Type Doped SiC Polytypes. Materials Science Forum, 1998, 264-268, 271-274.	0.3	2
243	Stacking Faults and 3C Quantum Wells in Hexagonal SiC Polytypes. Materials Science Forum, 2006, 527-529, 351-354.	0.3	2
244	Jahn-Teller Distortion of the Zinc Vacancy in ZnGeP ₂ . Chinese Physics Letters, 2008, 25, 1075-1078.	1.3	2
245	Site Dependence of Electronic Structure of Gd Impurities in GaN. Materials Research Society Symposia Proceedings, 2011, 1290, 1.	0.1	2
246	Ion blocking dip shape analysis around a LaAlO ₃ /SrTiO ₃ interface. Nuclear Instruments & Methods in Physics Research B, 2018, 423, 67-71.	0.6	2
247	First-principles calculations of phonon derived Raman and infrared spectra in Be-IV-N ₂ compounds. Journal Physics D: Applied Physics, 2019, 52, 385106.	1.3	2
248	Quasiparticle self-consistent GW energy band calculations for Ge ₃ N ₄ phases. Physical Review B, 2020, 102, .	1.1	2
249	Zone-center phonons in yellow phase CsSn_3 . Physical Review Materials, 2017, 1, .	0.9	2
250	N ₂ , NO, and O ₂ molecules in LiGaO ₂ in both Ga and Li sites and their relation to the vacancies. Journal of Applied Physics, 2022, 131, 145705.	1.1	2
251	Delocalization of dark and bright excitons in flat-band materials and the optical properties of V ₂ O ₅ . Npj Computational Materials, 2022, 8, .	3.5	2
252	Real-space representation of the quasiparticle self-consistent GW self-energy and its application to defect calculations. Physical Review B, 2022, 105, .	1.1	2

#	ARTICLE	IF	CITATIONS
253	Comment on "Theory of Incomplete Crystals and Crystalline Interfaces" by F. Garcia-Moliner and V. R. Velasco. <i>Physica Scripta</i> , 1987, 35, 724-725.	1.2	1
254	Total Energy Differences Between Silicon Carbide Polytypes and their Implications for Crystal Growth. <i>Materials Research Society Symposia Proceedings</i> , 1997, 492, 145.	0.1	1
255	Theoretical Studies of ZnO and Related $MgxZn_{1-x}O$ Alloy Band Structures. <i>Materials Research Society Symposia Proceedings</i> , 1998, 537, 1.	0.1	1
256	Electronic Structure and Magnetic Properties of Transition Metal Doped Silicon Carbide in Different Polytypes. <i>Materials Science Forum</i> , 2006, 527-529, 641-646.	0.3	1
257	Calculated x-ray linear dichroism spectra for Gd-doped GaN. <i>Physical Review B</i> , 2011, 84, .	1.1	1
258	GaAs Nanowires: A New Place to Explore Polytype Physics. <i>Materials Science Forum</i> , 0, 717-720, 565-568.	0.3	1
259	Topological quantum switch and controllable one-dimensional conducting paths in antimonene facilitated by breaking the inversion symmetry. <i>Physical Review B</i> , 2020, 102, .	1.1	1
260	Theoretical study of diamond interfaces with related semiconductors. <i>Carbon</i> , 1990, 28, 781-782.	5.4	0
261	AB-Initio Calculations Of Second Order Optical Response Functions In Wurtzite GAN and ALN, And Their Short Period Superlattices. <i>Materials Research Society Symposia Proceedings</i> , 1997, 482, 862.	0.1	0
262	First-Principles Calculations of Nonlinear Optical Response Functions in Semiconductors. <i>Materials Research Society Symposia Proceedings</i> , 1999, 579, 137.	0.1	0
263	Electronic Structure and Derived Linear and Nonlinear Optical Properties of Chalcopyrites. <i>Materials Research Society Symposia Proceedings</i> , 1999, 607, 385.	0.1	0
264	Electronic Structure and Magnetic Properties of Transition Metal Doped Silicon Carbide. <i>Materials Research Society Symposia Proceedings</i> , 2001, 690, F6.8.1.	0.1	0
265	Electronic Structure of Native Point Defects in ZnGeP ₂ . <i>Materials Research Society Symposia Proceedings</i> , 2003, 799, 203.	0.1	0
266	Gadolinium and Oxygen co-doping of Gallium Nitride: an LSDA + U study. <i>Materials Research Society Symposia Proceedings</i> , 2006, 955, 1.	0.1	0
267	Publisher's Note: Phonons and related spectra in bulk and monolayer V ₂ O ₅ [Phys. Rev. B 89, 045109 (2014)]. <i>Physical Review B</i> , 2014, 89, .	1.1	0
268	Publisher's Note: Effects of structural relaxation, interdiffusion, and surface termination on two-dimensional electron gas formation at the LaAlO ₃ /SrTiO ₃ (001) interface [Phys. Rev. B 92, 155416 (2015)]. <i>Physical Review B</i> , 2016, 93, .	1.1	0