Chris G. Van de Walle

List of Publications by Year
in descending order

522 papers	61,336 citations	1172 114 h-index	1166 236 g-index
554 all docs	554 docs citations	554 times ranked	38603 citing authors

#	Article	IF	Citations
1	Defect tolerance in halide perovskites: A first-principles perspective. Journal of Applied Physics, 2022, 131, .	1.1	35
2	First-principles studies of diffusion in gallium oxide. , 2022, , .		0
3	Role of carbon and hydrogen in limiting <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -type doping of monoclinic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:msub><mml:mi>Al</mml:mi><mml:mi>m</mml:mi></mml:msub></mml:mrow></mml:math> -Ga2O3. Physical Review B, 2022, 105, .	1.1	18
4	Epitaxial ScxAl1â^'xN on GaN exhibits attractive high-K dielectric properties. Applied Physics Letters, 2022, 120, .	1.5	17
5	Anisotropic-strain-enhanced hole mobility in GaN by lattice matching to ZnGeN2 and MgSiN2. Applied Physics Letters, 2022, 120, .	1.5	2
6	Defect Chemistry and Hydrogen Transport in La/Sr-Based Oxyhydrides. Journal of Physical Chemistry C, 2021, 125, 2250-2256.	1.5	3
7	Understanding carbon contamination in the proton-conducting zirconates and cerates. Physical Chemistry Chemical Physics, 2021, 23, 14205-14211.	1.3	3
8	Impact of dangling bonds on properties of h-BN. 2D Materials, 2021, 8, 024002.	2.0	6
9	Boron dangling bonds in a monolayer of hexagonal boron nitride. Journal of Applied Physics, 2021, 129, .	1.1	7
10	Adsorption and Diffusion of Aluminum on Î²-Ga₂O₃(010) Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 10650-10655.	4.0	7
11	A first-principles understanding of point defects and impurities in GaN. Journal of Applied Physics, 2021, 129, .	1.1	55
12	Thermodynamics of boron incorporation in BGaN. Physical Review Materials, 2021, 5, .	0.9	10
13	Finite-size correction for slab supercell calculations of materials with spontaneous polarization. Npj Computational Materials, 2021, 7, .	3.5	14
14	Minimizing hydrogen vacancies to enable highly efficient hybrid perovskites. Nature Materials, 2021, 20, 971-976.	13.3	92
15	Atomic scale investigation of aluminum incorporation, defects, and phase stability in Î²-(AlxGa1â^'x)2O3 films. APL Materials, 2021, 9, .	2.2	35
16	Hydride Conductivity in Nitride Hydrides. ACS Applied Energy Materials, 2021, 4, 6348-6355.	2.5	6
17	Vibrational and vibronic structure of isolated point defects: The nitrogen-vacancy center in diamond. Physical Review B, 2021, 104, .	1.1	24
18	Materials and device simulations for silicon qubit design and optimization. MRS Bulletin, 2021, 46, 634-641.	1.7	6

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19	Hole Trapping at Acceptor Impurities and Alloying Elements in AlN. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100218.	1.2	3
20	First-principles study of electron transport in ScN. Physical Review B, 2021, 104, .	1.1	13
21	Piezoelectric effect and polarization switching in Al1â^'xScxN. Journal of Applied Physics, 2021, 130, .	1.1	15
22	Structural, electronic, and polarization properties of YN and LaN. Physical Review Materials, 2021, 5, .	0.9	4
23	Nonrad: Computing nonradiative capture coefficients from first principles. Computer Physics Communications, 2021, 267, 108056.	3.0	50
24	All-inorganic halide perovskites as candidates for efficient solar cells. Cell Reports Physical Science, 2021, 2, 100604.	2.8	28
25	Prospects for n-type conductivity in cubic boron nitride. Applied Physics Letters, 2021, 119, .	1.5	9
26	Surprising stability of polar (001) surfaces of the Mott insulator GdTiO3. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	1
27	Incorporation of Si and Sn donors in Î²-Ga2O3 through surface reconstructions. Journal of Applied Physics, 2021, 130, 185703.	1.1	7
28	Mg doping and diffusion in (010) Î²-Ga2O3 films grown by plasma-assisted molecular beam epitaxy. Journal of Applied Physics, 2021, 130, .	1.1	10
29	Deepâ€Level Defects and Impurities in InGaN Alloys. Physica Status Solidi (B): Basic Research, 2020, 257, 1900534.	0.7	13
30	Firstâ€Principles Simulation of Carrier Recombination Mechanisms in Halide Perovskites. Advanced Energy Materials, 2020, 10, 1902830.	10.2	52
31	Anomalous Auger Recombination in PbSe. Physical Review Letters, 2020, 125, 037401.	2.9	16
32	First-principles calculations of hyperfine interaction, binding energy, and quadrupole coupling for shallow donors in silicon. Npj Computational Materials, 2020, 6, .	3.5	17
33	Electronic structure and magneto-optical properties of silicon-nitrogen-vacancy complexes in diamond. Physical Review B, 2020, 102, .	1.1	10
34	First-principles surface energies for monoclinic Ga2O3 and Al2O3 and consequences for cracking of (AlxGa1â^'x)2O3. APL Materials, 2020, 8, .	2.2	53
35	Radiative capture rates at deep defects from electronic structure calculations. Physical Review B, 2020, 102, .	1.1	14
36	Inflection points in the conduction-band structure of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>BaSn</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 102, .	1.1	3

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37	Orientation-dependent band offsets between (AlxGa1â^'x)2O3 and Ga2O3. Applied Physics Letters, 2020, 117, .	1.5	24
38	Polarization properties at rocksalt/wurtzite oxide interfaces. Physical Review B, 2020, 102, .	1.1	4
39	Band alignments and polarization properties of the Zn-IV-nitrides. Journal of Materials Chemistry C, 2020, 8, 7890-7898.	2.7	19
40	Hidden role of Bi incorporation in nonradiative recombination in methylammonium lead iodide. Journal of Materials Chemistry A, 2020, 8, 12964-12967.	5.2	18
41	Prospects for high carrier mobility in the cubic germanates. Semiconductor Science and Technology, 2020, 35, 085030.	1.0	5
42	Role of Ga and In adatoms in the epitaxial growth of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î²</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 102, .	1.1	11
43	First-principles study of transport in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>WO</mml:mi><mml:mn>3</mml:mn></mml:msub></m Physical Review B, 2020, 101, .	1.1	2
44	Correctly Assessing Defect Tolerance in Halide Perovskites. Journal of Physical Chemistry C, 2020, 124, 6022-6027.	1.5	70
45	Effect of Titanium Induced Chemical Inhomogeneity on Crystal Structure, Electronic Structure, and Optical Properties of Wide Band Gap Ga₂O₃. Crystal Growth and Design, 2020, 20, 1422-1433.	1.4	21
46	Spinning up quantum defects in 2D materials. Nature Materials, 2020, 19, 487-489.	13.3	18
47	Iodine interstitials as a cause of nonradiative recombination in hybrid perovskites. Physical Review B, 2020, 101, .	1.1	76
48	First-Principles Calculations 1. Springer Series in Materials Science, 2020, , 309-328.	0.4	0
49	Phonon- and charged-impurity-assisted indirect free-carrier absorption in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Ga</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B,	1.1	11
50	Optimizing <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -type doping of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>ZnGeN</mml:mi><mml:mn>2</mml:mn></mml:msub></ and <mml:math	1.1	8
51	Unusual Formation of Point-Defect Complexes in the Ultrawide-Band-Gap Semiconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î²</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></ Physical Review X, 2019, 9, .	2.8	62
52	First-principles study of electron-phonon interactions and transport in anatase <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>TiO</mml:mi></mml:mrow><mml:mn>2</mml:mn></m Physical Review B, 2019, 100, .	1.1	10
53	Impact of phonons and spin-orbit coupling on Auger recombination in InAs. Physical Review B, 2019, 100, .	1.1	2
54	Deep acceptors and their diffusion in Ga2O3. APL Materials, 2019, 7, .	2.2	143

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55	First-principles study of bandgap bowing in BGaN alloys. Journal of Applied Physics, 2019, 126, 095706.	1.1	18
56	Limitations of In2O3 as a transparent conducting oxide. Applied Physics Letters, 2019, 115, .	1.5	14
57	Dangling Bonds in Hexagonal Boron Nitride as Single-Photon Emitters. Physical Review Letters, 2019, 123, 127401.	2.9	68
58	Strategies for p-type doping of ZnGeN2. Applied Physics Letters, 2019, 114, .	1.5	17
59	Hydrogen-Induced Degradation of NaMnO₂. Chemistry of Materials, 2019, 31, 5224-5228.	3.2	10
60	Electrical and optical properties of iron in GaN, AlN, and InN. Physical Review B, 2019, 99, .	1.1	30
61	Optimizing Proton Conductivity in Zirconates through Defect Engineering. ACS Applied Energy Materials, 2019, 2, 2611-2619.	2.5	25
62	First-principles study of antisite defects in perovskite stannates. Journal of Applied Physics, 2019, 126, 195701.	1.1	9
63	Carbon dimer defect as a source of the 4.1 eV luminescence in hexagonal boron nitride. Applied Physics Letters, 2019, 115, .	1.5	77
64	Ab initio study of enhanced thermal conductivity in ordered AlGaO3 alloys. Applied Physics Letters, 2019, 115, .	1.5	24
65	Giant polarization charge density at lattice-matched GaN/ScN interfaces. Applied Physics Letters, 2019, 115, .	1.5	15
66	Role of point defects in the electrical and optical properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>In</mml:mi><mml:mn>2</mml:mn></mml:n mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review Materials, 2019, 3, .	0.9	37
67	Publisher's Note: Defects in AlN as candidates for solid-state qubits [Phys. Rev. B 93 , 161201(R) (2016)]. Physical Review B, 2018, 97, .	1.1	0
68	Comment on â€œComparative study of ab initio nonradiative recombination rate calculations under different formalismsâ€• Physical Review B, 2018, 97, .	1.1	11
69	Origins of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -type doping difficulties in perovskite stannates. Physical Review B, 2018, 97, .	1.1	41
70	First-Principles Calculations of Point Defects for Quantum Technologies. Annual Review of Materials Research, 2018, 48, 1-26.	4.3	93
71	Interfacial Cation-Defect Charge Dipoles in Stacked TiO₂/Al₂O₃ Gate Dielectrics. ACS Applied Materials & Interfaces, 2018, 10, 5140-5146.	4.0	10
72	Publisher's Note: Hole polarons and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -type doping in boron nitride polymorphs [Phys. Rev. B 96 , 100102(R) (2017)]. Physical Review B, 2018, 97, .	1.1	2

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73	First-principles study of direct and indirect optical absorption in BaSnO3. Applied Physics Letters, 2018, 112, 062106.	1.5	14
74	Posner molecules: from atomic structure to nuclear spins. Physical Chemistry Chemical Physics, 2018, 20, 12373-12380.	1.3	29
75	Linear Hyperfine Tuning of Donor Spins in Silicon Using Hydrostatic Strain. Physical Review Letters, 2018, 120, 167701.	2.9	34
76	Ultrawideâ€Bandgap Semiconductors: Research Opportunities and Challenges. Advanced Electronic Materials, 2018, 4, 1600501.	2.6	839
77	Defect identification based on first-principles calculations for deep level transient spectroscopy. Applied Physics Letters, 2018, 113, .	1.5	51
78	Monolayer to Bulk Properties of Hexagonal Boron Nitride. Journal of Physical Chemistry C, 2018, 122, 25524-25529.	1.5	134
79	Sr3Ir2O7F2 : Topochemical conversion of a relativistic Mott state into a spin-orbit driven band insulator. Physical Review B, 2018, 98, .	1.1	3
80	First-Principles Analysis of Radiative Recombination in Lead-Halide Perovskites. ACS Energy Letters, 2018, 3, 2329-2334.	8.8	81
81	Unexpectedly Strong Auger Recombination in Halide Perovskites. Advanced Energy Materials, 2018, 8, 1801027.	10.2	64
82	Three-Dimensional Spin Texture in Hybrid Perovskites and Its Impact on Optical Transitions. Journal of Physical Chemistry Letters, 2018, 9, 2903-2908.	2.1	50
83	Carrier-induced absorption as a mechanism for electrochromism in tungsten trioxide. MRS Communications, 2018, 8, 926-931.	0.8	9
84	Accurate and efficient band-offset calculations from density functional theory. Computational Materials Science, 2018, 151, 174-180.	1.4	56
85	Ion-Transport Engineering of Alkaline-Earth Hydrides for Hydride Electrolyte Applications. Chemistry of Materials, 2018, 30, 5878-5885.	3.2	15
86	Electron doping in Sr3Ir2O7 : Collapse of band gap and magnetic order. Physical Review B, 2018, 98, .	1.1	3
87	Native point defects and impurities in hexagonal boron nitride. Physical Review B, 2018, 97, .	1.1	200
88	Structural and electronic properties of Ga2O3-Al2O3 alloys. Applied Physics Letters, 2018, 112, .	1.5	198
89	First-principles calculations of optical transitions at native defects and impurities in ZnO. , 2018, , .		1
90	Impact of point defects on electrochromism in WO3. , 2018, , .		1

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91	Publisher's Note: Band bowing and the direct-to-indirect crossover in random BAlN alloys [Phys. Rev. Materials 1 , 065001 (2017)]. Physical Review Materials, 2018, 2, .	0.9	0
92	Calcium as a nonradiative recombination center in InGaN. Applied Physics Express, 2017, 10, 021001.	1.1	19
93	Ab initio study of hydrogenic effective mass impurities in Si nanowires. Journal of Physics Condensed Matter, 2017, 29, 095303.	0.7	1
94	Controlling n-Type Doping in MoO₃. Chemistry of Materials, 2017, 29, 2563-2567.	3.2	74
95	Acceptor doping in the proton conductor SrZrO₃. Physical Chemistry Chemical Physics, 2017, 19, 11485-11491.	1.3	23
96	Identification of yellow luminescence centers in Be-doped GaN through pressure-dependent studies. Journal Physics D: Applied Physics, 2017, 50, 22LT03.	1.3	17
97	Fundamental limits on the electron mobility ofÎ²-Ga₂O₃. Journal of Physics Condensed Matter, 2017, 29, 234001.	0.7	99
98	Growth of coherent BGaN films using BBr3 gas as a boron source in plasma assisted molecular beam epitaxy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	16
99	Phase transformations upon doping in WO3. Journal of Chemical Physics, 2017, 146, 214504.	1.2	25
100	Computationally predicted energies and properties of defects in GaN. Npj Computational Materials, 2017, 3, .	3.5	196
101	Hole polarons and p -type doping in boron nitride polymorphs. Physical Review B, 2017, 96, .	1.1	18
102	Electrical compensation mechanism in fluorine-doped SnO2. Applied Physics Letters, 2017, 111, .	1.5	8
103	Lack of quantum confinement in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ga</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:mrow></mml:math> nanolayers. Physical Review B, 2017, 96, .	1.1	36
104	Conditions for T2 resistivity from electron-electron scattering. European Physical Journal B, 2017, 90, 1.	0.6	12
105	First-principles characterization of native-defect-related optical transitions in ZnO. Journal of Applied Physics, 2017, 122, .	1.1	88
106	Deep donor state of the copper acceptor as a source of green luminescence in ZnO. Applied Physics Letters, 2017, 111, 042101.	1.5	26
107	Hybrid functional study of native point defects and impurities in ZnGeN2. Journal of Applied Physics, 2017, 122, .	1.1	22
108	Sub-band-gap absorption in Ga2O3. Applied Physics Letters, 2017, 111, .	1.5	44

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109	Electronic and protonic conduction in LaFeO₃. Journal of Materials Chemistry A, 2017, 5, 15367-15379.	5.2	48
110	First-principles analysis of electron transport in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BaSnO</mml:mi><mml:mn>3</mml:mn></mml:msub></r Physical Review B, 2017, 95, .	1.1	77
111	Band bowing and the direct-to-indirect crossover in random BAlN alloys. Physical Review Materials, 2017, 1, .	0.9	25
112	Auger recombination in InAs: Role of spin-orbit coupling and phonons. , 2016, , .		1
113	Gallium vacancy complexes as a cause of Shockley-Read-Hall recombination in III-nitride light emitters. Applied Physics Letters, 2016, 108, .	1.5	91
114	Tutorial: Defects in semiconductorsâ€"Combining experiment and theory. Journal of Applied Physics, 2016, 119, .	1.1	297
115	Band alignments between SmTiO3, GdTiO3, and SrTiO3. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	6
116	Donor defects and small polarons on the TiO2(110) surface. Journal of Applied Physics, 2016, 119, .	1.1	51
117	Iron as a source of efficient Shockley-Read-Hall recombination in GaN. Applied Physics Letters, 2016, 109, .	1.5	64
118	BaSnO3 as a channel material in perovskite oxide heterostructures. Applied Physics Letters, 2016, 108, .	1.5	81
119	Impact of Point Defects on Proton Conduction in Strontium Cerate. Journal of Physical Chemistry C, 2016, 120, 9562-9568.	1.5	11
120	Metal versus insulator behavior in ultrathin<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>-based heterostructures. Physical Review B, 2016, 94, .	1.1	2
121	Impact of nitrogen and carbon on defect equilibrium in ZrO2. Acta Materialia, 2016, 117, 286-292.	3.8	9
122	Hydrogen intercalation in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mm Physical Review B, 2016, 94, .	1.1	15
123	Effects of La 5d and 4f states on the electronic and optical properties of LaAlO3. Physical Review B, 2016, 94, .	1.1	14
124	Structural investigation of the bilayer iridate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Sr</mml:mi><mml:mn>3</mml:mn></mml:r mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2016, 93, .	1.1	35
125	Defects in AlN as candidates for solid-state qubits. Physical Review B, 2016, 93, .	1.1	50
126	Role of excited states in Shockley-Read-Hall recombination in wide-band-gap semiconductors. Physical Review B, 2016, 93, .	1.1	89

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127	Energetic, spatial, and momentum character of the electronic structure at a buried interface: The two-dimensional electron gas between two metal oxides. Physical Review B, 2016, 93, .	1.1	29
128	Depth-Resolved Composition and Electronic Structure of Buried Layers and Interfaces in a LaNiO3/SrTiO3 Superlattice from Soft- and Hard- X-ray Standing-Wave Angle-Resolved Photoemission. Journal of Electron Spectroscopy and Related Phenomena, 2016, 211, 70-81.	0.8	9
129	Point defects, impurities, and small hole polarons in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">GdTiO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2016, 93, .	1.1	22
130	Electron and chemical reservoir corrections for point-defect formation energies. Physical Review B, 2016, 93, .	1.1	50
131	Correct Implementation of Polarization Constants in Wurtzite Materials and Impact on III-Nitrides. Physical Review X, 2016, 6, .	2.8	81
132	Doping of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ga</mml:mi><mml:mn>2</mml:mn></mml: mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> with transition metals. Physical Review B, 2016, 94, .	1.1	61
133	Role of oxygen vacancies in crystalline WO₃. Journal of Materials Chemistry C, 2016, 4, 6641-6648.	2.7	95
134	Point-defect kinetics in Î±- and Î³-MgH2. International Journal of Hydrogen Energy, 2016, 41, 5688-5692.	3.8	11
135	Surprising stability of neutral interstitial hydrogen in diamond and cubic BN. Journal of Physics Condensed Matter, 2016, 28, 06LT01.	0.7	7
136	Identification of Microscopic Hole-Trapping Mechanisms in Nitride Semiconductors. IEEE Electron Device Letters, 2016, 37, 154-156.	2.2	7
137	Firstâ€principles theory of acceptors in nitride semiconductors. Physica Status Solidi (B): Basic Research, 2015, 252, 900-908.	0.7	115
138	First-principles calculations of indirect Auger recombination in nitride semiconductors. Physical Review B, 2015, 92, .	1.1	77
139	Defects as qubits in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>3</mml:mn><mml:mi>C</mml:mi><mml:mtext>â^'</mml:mtext></ xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>4</mml:mn><mml:mi>H</mml:mi><mml:mtext>â^'</mml:mtext> Physical Review B, 2015, 92, .	1.1	88
140	Structural and electronic properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrZrO</mml:mi><mml:mn>3</mml:mn></mml:msub></ Sr(Ti,Zr)<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>alloys. Physical Review B, 2015, 92, .	1.1	27
141	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mo> for transparent electronics. Physical Review B, 2015, 92, .	1.1	100
142	First-principles study of surface charging in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>LaAlO</mml:mi><mml:mn>3</mml:mn></mml: Physical Review B, 2015, 92, .	1.1	16
143	Free-carrier absorption in transparent conducting oxides: Phonon and impurity scattering in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SnO</mml:mi><mml:mn>2</mml:mn></mml:msub></ Physical Review B, 2015, 92, .	1.1	34
144	Small polarons and point defects in barium cerate. Physical Review B, 2015, 92, .	1.1	33

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145	Impact of electric-field dependent dielectric constants on two-dimensional electron gases in complex oxides. Applied Physics Letters, 2015, 107, .	1.5	10
146	Effects of biaxial stress and layer thickness on octahedral tilts in LaNiO3. Applied Physics Letters, 2015, 107, 261901.	1.5	3
147	Exciton-dominated Dielectric Function of Atomically Thin MoS2 Films. Scientific Reports, 2015, 5, 16996.	1.6	155
148	Observation by resonant angle-resolved photoemission of a critical thickness for 2-dimensional electron gas formation in SrTiO3 embedded in GdTiO3. Applied Physics Letters, 2015, 107, 231602.	1.5	9
149	Sulfur doping of AlN and AlGaN for improved n-type conductivity. Physica Status Solidi - Rapid Research Letters, 2015, 9, 462-465.	1.2	12
150	Tuning bad metal and non-Fermi liquid behavior in a Mott material: Rare-earth nickelate thin films. Science Advances, 2015, 1, e1500797.	4.7	99
151	Nitride-based high-electron-mobility transistor with single-layer InN for mobility-enhanced channel. Applied Physics Express, 2015, 8, 024302.	1.1	8
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