Niels E Christensen

List of Publications by Year
in descending order

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75 papers	3,017 citations	218381 26 h-index	168136 53 g-index
75 all docs	75 docs citations	75 times ranked	2719 citing authors

#	Article	IF	Citations
1	Rocksalt ZnMgO alloys for ultraviolet applications: Origin of band-gap fluctuations and direct-indirect transitions. Physical Review B, 2020, 101, .	1.1	16
2	ZnO/(Zn)MgO polar and nonpolar superlattices. Journal of Applied Physics, 2019, 125, .	1.1	14
3	Theoretical study of nitride short period superlattices. Journal of Physics Condensed Matter, 2018, 30, 063001.	0.7	31
4	Comparison of wurtzite GaN/AlN and ZnO/MgO shortâ€period superlattices: Calculation of band gaps and builtâ€in electric field. Physica Status Solidi (B): Basic Research, 2017, 254, 1600704.	0.7	15
5	Bandgap behavior of InGaN/GaN short period superlattices grown by metalâ€organic vapor phase epitaxy. Physica Status Solidi (B): Basic Research, 2017, 254, 1600710.	0.7	10
6	Band gap engineering of In(Ga)N/GaN short period superlattices. Scientific Reports, 2017, 7, 16055.	1.6	22
7	Structural and electronic properties of wurtzite MgZnO and BeMgZnO alloys and their thermodynamic stability. Journal of Applied Physics, 2016, 120, .	1.1	17
8	ZnGeSb₂: a promising thermoelectric material with tunable ultra-high conductivity. Physical Chemistry Chemical Physics, 2016, 18, 26275-26283.	1.3	11
9	Band gaps and built-in electric fields in InAlN/GaN short period superlattices: Comparison with (InAlGa)N quaternary alloys. Physical Review B, 2016, 93, .	1.1	10
10	Thermoelectric properties of binary LnN (Ln=La and Lu): First principles study. AIP Conference Proceedings, 2015, , .	0.3	4
11	Influence of internal electric fields on band gaps in short period GaN/GaAlN and InGaN/GaN polar superlattices. Journal of Applied Physics, 2015, 118, .	1.1	18
12	Structural, electronic and hyperfine characterization of pure and Ta-dopedZrSiO4. Physical Review B, 2015, 91, .	1.1	5
13	Band gaps and internal electric fields in semipolar short period InN/GaN superlattices. Applied Physics Letters, 2014, 104, .	1.5	5
14	The discrepancies between theory and experiment in the optical emission of monolayer In(Ga)N quantum wells revisited by transmission electron microscopy. Applied Physics Letters, 2014, 104, .	1.5	48
15	Short period polar and nonpolar m InN/n GaN superlattices. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 678-681.	0.8	2
16	Theoretical investigation of pressure-induced structural transitions in americium using<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>GGA</mml:mi><mml:mo>+</mml:mo><mml:mi>U</mml:mi></mml:mrow></mml:math>and hybrid density functional theory methods. Physical Review B, 2013, 88, .	1.1	13
17	Electronic correlation strength of Pu. Physical Review B, 2013, 87, .	1.1	7
18	Photoluminescence and pressure effects in short period InN/nGaN superlattices. Journal of Applied Physics, 2013, 113, 123101.	1.1	26

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19	Thermoelectric properties of chalcopyrite type CuGaTe2 and chalcostibite CuSbS2. Journal of Applied Physics, 2013, 114, .	1.1	67
20	Band gaps in InN/GaN superlattices: Nonpolar and polar growth directions. Journal of Applied Physics, 2013, 114, 223102.	1.1	13
21	Electronic topological transition in LaSn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>under pressure. Physical Review B, 2012, 85, .	1.1	50
22	Structural, electronic, and hyperfine properties of pure and Ta-dopedm-ZrO2. Physical Review B, 2012, 85, .	1.1	16
23	Hydrostatic pressure and strain effects in short period InN/GaN superlattices. Applied Physics Letters, 2012, 101, 092104.	1.5	22
24	Band Structure and Quantum Confined Stark Effect in InN/GaN superlattices. Crystal Growth and Design, 2012, 12, 3521-3525.	1.4	37
25	Band gap bowing in quaternary nitride semiconducting alloys. Applied Physics Letters, 2011, 98, .	1.5	29
26	Band gap bowings and anomalous pressure effects in IIIâ€“V nitride alloys: Role of Inâ€segregation. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1558-1561.	0.8	6
27	Calculations of quasiâ€particle spectra of semiconductors under pressure. Physica Status Solidi (B): Basic Research, 2011, 248, 1096-1101.	0.7	2
28	Quasiparticle band structures of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î²</mml:mi></mml:math>-HgS, HgSe, and HgTe. Physical Review B, 2011, 84, .	1.1	82
29	Size effects in band gap bowing in nitride semiconducting alloys. Physical Review B, 2011, 83, .	1.1	28
30	Atomic structure and electronic properties of the Si<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math>Sb<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>100</mml:mn><mml:mo	1.1	7
31	Inâ€clustering effects in InAlN and InGaN revealed by high pressure studies. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1369-1371.	0.8	16
32	In-clustering induced anomalous behavior of band gap in InAlN and InGaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1283-1286.	0.8	7
33	Limitations to band gap tuning in nitride semiconductor alloys. Applied Physics Letters, 2010, 96, .	1.5	38
34	Electronic properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>3</mml:mn><mml:mi>R</mml:mi><mml:msub><mml:mrow><mml:mtext>-CuAlO</mml:mtext></mml:mrow><mml:mtext	1.1	34
35	pressure: Three theoretical approaches. Physical Review B, 2010, 81, . Full-zone analysis of relativistic spin splitting at band anticrossings: The case of zinc-blende semiconductors. Physical Review B, 2010, 81, .	1.1	17
36	Quasiparticle self-consistent GW theory of III-V nitride semiconductors: Bands, gap bowing, and effective masses. Physical Review B, 2010, 82, .	1.1	53

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37	High-pressure structural study of fluoro-perovskite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CsCdF</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> to 60 GPa: A combined experimental and theoretical study. Physical Review B, 2010, 81, .	1.1	46
38	Coexistence of different charge states in Ta-doped monoclinic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>HfO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Theoretical and experimental approaches. Physical Review B, 2010, 82, .	1.1	19
39	Anomalous composition dependence of the band gap pressure coefficients in In-containing nitride semiconductors. Physical Review B, 2010, 81, .	1.1	27
40	Quasiparticle self-consistentGWcalculations for PbS, PbSe, and PbTe: Band structure and pressure coefficients. Physical Review B, 2010, 81, .	1.1	134
41	Pressure variation of the valence band width in Ge: A self-consistent GW study. Physical Review B, 2009, 79, .	1.1	9
42	The magnetization of Î³â€²â€²Fe₄N: theory vs. experiment. Physica Status Solidi (B): Basic Research, 2009, 246, 909-928.	0.7	79
43	Electronic and optical properties of IIIâ€nitrides under pressure. Physica Status Solidi (B): Basic Research, 2009, 246, 570-575.	0.7	12
44	Gap bowing in In_x Ga_{1â€“x}N and In_x Al_{1â€“x}N under pressure. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S368.	0.8	7
45	Influence of indium clustering on the band structure of semiconducting ternary and quaternary nitride alloys. Physical Review B, 2009, 80, .	1.1	132
46	Conduction band filling in Inâ€rich InGaN and InN under hydrostatic pressure. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1488-1490.	0.8	1
47	Band structure and effective mass of InN under pressure. Physica Status Solidi (B): Basic Research, 2008, 245, 887-889.	0.7	5
48	Bowing of the band gap pressure coefficient in InxGa1âˆ’xN alloys. Journal of Applied Physics, 2008, 103, 033514.	1.1	53
49	Electronic structure and effective masses of InN under pressure. Journal of Applied Physics, 2008, 104, 013704.	1.1	27
50	Strain-induced conduction-band spin splitting in GaAs from first-principles calculations. Physical Review B, 2008, 78, .	1.1	16
51	Ab initiostudy of structural and electronic properties and hyperfine interactions at the Ta nucleus in Ta-doped monoclinic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>HfO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2008, 78, .	1.1	24
52	Role of conduction-band filling in the dependence of InN photoluminescence on hydrostatic pressure. Physical Review B, 2007, 76, .	1.1	27
53	Pressure and composition dependence of the electron effective mass in GaAs1â€“xNx. Physica Status Solidi (B): Basic Research, 2006, 243, 1599-1603.	0.7	2
54	Calculated superconductive properties of Li and Na under pressure. Physical Review B, 2006, 73, .	1.1	39

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55	Linear and nonlinear optical properties of Li under pressure. Physical Review B, 2006, 73, .	1.1	9
56	Electronic structure of rare-earth impurities in GaAs and GaN. Physical Review B, 2006, 74, .	1.1	65
57	First Principles Determination of Hyperfine Parameters on fcc-Fe8X (X = C, N) Arrangements. Hyperfine Interactions, 2005, 161, 197-202.	0.2	4
58	Ab-initio study of excitonic effects in conventional and organic semiconductors. Physica Status Solidi (B): Basic Research, 2005, 242, 1754-1758.	0.7	14
59	Pressure strengthening and its application to the analysis of hydrogen sample-radius behaviour in a tungsten gasket as a function of the initial sample-radius-to-tip-radius ratio. Journal of Physics Condensed Matter, 2002, 14, 10907-10910.	0.7	0
60	Predicted Superconductive Properties of Lithium under Pressure. Physical Review Letters, 2001, 86, 1861-1864.	2.9	80
61	Electronic structure of materials under pressure. International Journal of Quantum Chemistry, 2000, 77, 880-894.	1.0	11
62	High-pressureCmcaand hcp phases of germanium. Physical Review B, 2000, 62, R10603-R10606.	1.1	64
63	First-principles investigation of SrBi2Ta2O9. Ferroelectrics, 2000, 237, 49-56.	0.3	5
64	Computer simulations of defects in perovskite KNbO3crystals. Ferroelectrics, 1999, 229, 69-75.	0.3	6
65	Solids under Pressure. Ab Initio Theory. Physica Status Solidi (B): Basic Research, 1999, 211, 5-16.	0.7	33
66	Structural and vibronic properties of perovskites studied by using the Perdewâ€“Burkeâ€“Ernzerhof GGA. , 1998, , .		0
67	Native defects and carbon impurity in cubic BN. MRS Internet Journal of Nitride Semiconductor Research, 1998, 3, 1.	1.0	5
68	Cubic Inn Inclusions as the Cause for the Unusually Weak Pressure Shift of the Luminescence in InGaN. Materials Research Society Symposia Proceedings, 1997, 482, 720.	0.1	0
69	Theoretical study of point defects in GaN and AlN; lattice relaxations and pressure effects. MRS Internet Journal of Nitride Semiconductor Research, 1997, 2, 1.	1.0	12
70	Electronic Structures of Semiconductors under Pressure. Physica Status Solidi (B): Basic Research, 1996, 198, 23-34.	0.7	34
71	First-Principles Simulations of Interstitial Atoms in Ionic Solids. Materials Research Society Symposia Proceedings, 1995, 408, 509.	0.1	1
72	Optical and structural properties of III-V nitrides under pressure. Physical Review B, 1994, 50, 4397-4415.	1.1	640

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73	Semiconductor heterojunctions and superlattices: Band offsets and electronic structures. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 70, 567-581.	0.6	4
74	Bonding and ionicity in semiconductors. Physical Review B, 1987, 36, 1032-1050.	1.1	274
75	Electronic structure of GaAs under strain. Physical Review B, 1984, 30, 5753-5765.	1.1	299