Joe Trodahl

List of Publications by Year
in descending order

59 papers	1,338 citations	304743 22 h-index	361022 35 g-index
62 all docs	62 docs citations	62 times ranked	1249 citing authors

#	Article	IF	Citations
1	Thermal conductivity of landfast Antarctic and Arctic sea ice. Journal of Geophysical Research, 2007, 112, .	3.3	122
2	Semiconducting ground state ofGdNthin films. Physical Review B, 2006, 73, .	3.2	110
3	Ferromagnetic redshift of the optical gap in GdN. Physical Review B, 2007, 76, .	3.2	79
4	Growth and properties of epitaxial GdN. Journal of Applied Physics, 2009, 106, .	2.5	49
5	Effect of ammonia on the temperature-dependent conductivity and thermopower of polypyrrole. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 1331-1338.	2.1	47
6	Comparison between experiment and calculated band structures for DyN and SmN. Physical Review B, 2007, 76, .	3.2	47
7	Magnetic state of EuN: X-ray magnetic circular dichroism at the EuM4,5andL2,3absorption edges. Physical Review B, 2011, 83, .	3.2	47
8	Role of magnetic polarons in ferromagnetic GdN. Physical Review B, 2013, 87, .	3.2	40
9	Near-zero-moment ferromagnetism in the semiconductor SmN. Physical Review B, 2008, 78, .	3.2	39
10	Enhanced Curie temperature in N-deficient GdN. Applied Physics Letters, 2011, 98, .	3.3	38
11	Electronic structure of EuN: Growth, spectroscopy, and theory. Physical Review B, 2011, 84, .	3.2	38
12	Ferromagnetic resonance study of GdN thin films with bulk and extended lattice constants. Physical Review B, 2006, 74, .	3.2	34
13	Spin/orbit moment imbalance in the near-zero moment ferromagnetic semiconductor SmN. Physical Review B, 2013, 87, .	3.2	34
14	Vibrational properties of rare-earth nitrides: Raman spectra and theory. Physical Review B, 2009, 79, .	3.2	32
15	Europium Nitride: A Novel Diluted Magnetic Semiconductor. Physical Review Letters, 2013, 111, 167206.	7.8	31
16	Heat transport in McMurdo Sound first-year fast ice. Journal of Geophysical Research, 2000, 105, 11347-11358.	3.3	30
17	Nearest-neighbor Mn antiferromagnetic exchange in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ga</mml:mtext></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow> Physical Review B, 2010, 81, .	3.2	30
18	Gap anisotropy, spin fluctuations, and normal-state properties of the electron-doped superconductorSr0.9La0.1CuO2. Physical Review B, 2002, 65, .	3.2	26

#	Article	IF	Citations
19	Superconductivity in the ferromagnetic semiconductor samarium nitride. Physical Review B, 2016, 94, .	3.2	25
20	X-ray absorption spectroscopy in the analysis of GaN thin films. Surface and Interface Analysis, 2003, 35, 719-722.	1.8	24
21	Optical response of DyN. Journal of Applied Physics, 2013, 113, 203509.	2.5	24
22	On the ferromagnetic ground state of SmN. Physical Review B, 2016, 93, .	3.2	24
23	Electronic band structure information of GdN extracted from x-ray absorption and emission spectroscopy. Applied Physics Letters, 2010, 96, 032101.	3.3	22
24	O(Mn) vibrational bands in double-layered manganites: First and second order Raman scattering. Physical Review B, 2001, 63, .	3.2	21
25	Epitaxial growth and properties of GdN, EuN and SmN thin films. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 605-608.	0.8	21
26	NdN: An intrinsic ferromagnetic semiconductor. Physical Review B, 2016, 93, .	3.2	21
27	Electric field and photo-excited control of the carrier concentration in GdN. Applied Physics Letters, 2013, 102, 132409.	3.3	20
28	Direct measurement of sea ice thermal conductivity: No surface reduction. Journal of Geophysical Research, 2006, 111, .	3.3	19
29	Highly resistive epitaxial Mg-doped GdN thin films. Applied Physics Letters, 2015, 106, .	3.3	18
30	Breaking Molecular Nitrogen under Mild Conditions with an Atomically Clean Lanthanide Surface. ACS Omega, 2019, 4, 5950-5954.	3.5	17
31	Depth and seasonal variations in the thermal properties of Antarctic Dry Valley permafrost from temperature time series analysis. Journal of Geophysical Research, 2003, 108, .	3.3	16
32	Nitrogen vacancies and carrier-concentration control in rare-earth nitrides. Applied Physics Letters, 2020, 117, .	3.3	16
33	Carrier-controlled anomalous Hall effect in an intrinsic ferromagnetic semiconductor. Physical Review B, 2017, 96, .	3.2	14
34	Optical spectroscopy of SmN: Locating the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>4</mml:mn><mml:mi>f</mml:mi><mml:mrow></mml:m conduction band. Physical Review B, 2019, 99, .	3.2	14
35	Determination of the depth dependent scattering coefficient in sea ice. Journal of Geophysical Research, 1997, 102, 1141-1151.	3.3	13
36	Twisted phase of the orbital-dominant ferromagnet SmN in a GdN/SmN heterostructure. Physical Review B, 2015, 91, .	3.2	13

#	Article	IF	Citations
37	Anomalous Hall effect in SmN: Influence of orbital magnetism and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>4</mml:mn><mml:mi>f</mml:mi><mml:mrow> -band conduction. Physical Review B, 2018, 98, .	3.2	12
38	Amorphous Thin Films: Insulators, Metals, and Semiconductors. Advanced Materials, 2001, 13, 1031-1033.	21.0	10
39	Electronic properties of (Ga,Mn)N thin films with high Mn content. Journal of Applied Physics, 2008, 104, .	2.5	10
40	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>4</mml:mn><mml:mi>f</mml:mi><mml:mrow conduction in the magnetic semiconductor NdN. Physical Review B, 2019, 100, .	3.2	9
41	YbN: An intrinsic semiconductor with antiferromagnetic exchange. Physical Review B, 2014, 90, .	3.2	8
42	SmN and DyN: Effect of the nitrogen to rare earth flux ratio on the structural, transport, and magnetic properties. AIP Advances, 2021, 11, .	1.3	8
43	Facile dissociation of molecular nitrogen using lanthanide surfaces: Towards ambient temperature ammonia synthesis. Physical Review Materials, 2020, 4, .	2.4	8
44	Raman spectroscopy of highly aligned thin films of Sr2FeMoO6. Journal of Raman Spectroscopy, 2004, 35, 1081-1085.	2.5	7
45	Temperature-Induced Four-Fold-on-Six-Fold Symmetric Heteroepitaxy, Rocksalt SmN on Hexagonal AlN. Crystal Growth and Design, 2016, 16, 6454-6460.	3.0	7
46	Electron transport in heavily doped GdN. Physical Review Materials, 2018, 2, .	2.4	6
47	Experimental and ab initio study of Mg doping in the intrinsic ferromagnetic semiconductor GdN. Journal of Applied Physics, 2018, 123, .	2.5	5
48	Tunable magnetic exchange springs in semiconductor GdN/NdN superlattices. Physical Review B, 2019, 100, .	3.2	5
49	Compositional and structural studies of amorphous GaN grown by ion-assisted deposition. Materials Research Society Symposia Proceedings, 2001, 693, 579.	0.1	3
50	Conductivity, photoconductivity and optical properties of amorphous GaN films. Materials Research Society Symposia Proceedings, 2001, 693, 81.	0.1	3
51	Solar radiative heating in first-year sea ice. Annals of Glaciology, 2001, 33, 261-266.	1.4	3
52	Evolution of the local structure in GaN:O thin films grown by ion-assisted deposition with film thickness. Surface and Interface Analysis, 2005, 37, 273-280.	1.8	3
53	Magnetoresistance of epitaxial GdN films. Journal of Applied Physics, 2020, 128, .	2.5	3
54	GdN/SmN superlattices; influence of a Zeeman/exchange conflict. AIP Advances, 2021, 11, .	1.3	3

#	Article	IF	Citations
55	Contrasting para- and ferro-magnetic responses of (Gd,Dy)N alloys. Applied Physics Letters, 2021, 119, 172406.	3.3	3
56	Sea ice growth rates from tideâ€driven visible banding. Journal of Geophysical Research: Oceans, 2017, 122, 4675-4684.	2.6	2
57	TO(Î“) mode resonances in the rare-earth nitrides. AIP Advances, 2022, 12, 075120.	1.3	2
58	Effect of the growth temperature and nitrogen precursor on the structural and electrical transport properties of SmN thin films. MRS Advances, 2017, 2, 165-171.	0.9	1
59	Epitaxial GdN/SmN-based superlattices grown by molecular beam epitaxy. MRS Advances, 2017, 2, 189-194.	0.9	1