

Benjamin Ruck

List of Publications by Year in descending order

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47
papers

1,214
citations

304743

22
h-index

377865

34
g-index

47
all docs

47
docs citations

47
times ranked

1134
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing the defect states of LuN: An experimental and computational study. AIP Advances, 2022, 12, .	1.3	7
2	TO mode resonances in the rare-earth nitrides. AIP Advances, 2022, 12, 075120.	1.3	2
3	GdN/SmN superlattices; influence of a Zeeman/exchange conflict. AIP Advances, 2021, 11, .	1.3	3
4	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
5	Contrasting para- and ferro-magnetic responses of (Gd,Dy)N alloys. Applied Physics Letters, 2021, 119, 172406.	3.3	3
6	Magnetoresistance of epitaxial GdN films. Journal of Applied Physics, 2020, 128, .	2.5	3
7	Nitrogen vacancies and carrier-concentration control in rare-earth nitrides. Applied Physics Letters, 2020, 117, .	3.3	16
8	Facile dissociation of molecular nitrogen using lanthanide surfaces: Towards ambient temperature ammonia synthesis. Physical Review Materials, 2020, 4, .	2.4	8
9	Tunable magnetic exchange springs in semiconductor GdN/NdN superlattices. Physical Review B, 2019, 100, .	3.2	5
10	Optical spectroscopy of SmN: Locating the conduction band. Physical Review B, 2019, 99, .	3.2	4
11	Carrier concentration control and band structure in the magnetic semiconductor NdN. Physical Review B, 2019, 100, .	3.2	4
12	Experimental and <i>ab initio</i> study of Mg doping in the intrinsic ferromagnetic semiconductor GdN. Journal of Applied Physics, 2018, 123, .	2.5	5
13	Anomalous Hall effect in SmN: Influence of orbital magnetism and band structure on the <i>ab initio</i> band structure. Physical Review B, 2018, 98, .	3.2	4
14	Electron transport in heavily doped GdN. Physical Review Materials, 2018, 2, .	2.4	6
15	Perpendicular magnetic anisotropy in Co ₂ MnGa and its anomalous Hall effect. Applied Physics Letters, 2017, 110, .	3.3	37
16	Carrier-controlled anomalous Hall effect in an intrinsic ferromagnetic semiconductor. Physical Review B, 2017, 96, .	3.2	14
17	Nucleation and annihilation of skyrmions in Mn ₂ CoAl observed through the topological Hall effect. Scientific Reports, 2017, 7, 13620.	3.3	51
18	Superconductivity in the ferromagnetic semiconductor samarium nitride. Physical Review B, 2016, 94, .	3.2	25

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19	On the ferromagnetic ground state of SmN. Physical Review B, 2016, 93, .	3.2	24
20	NdN: An intrinsic ferromagnetic semiconductor. Physical Review B, 2016, 93, .	3.2	21
21	Twisted phase of the orbital-dominant ferromagnet SmN in a GdN/SmN heterostructure. Physical Review B, 2015, 91, .	3.2	13
22	Highly resistive epitaxial Mg-doped GdN thin films. Applied Physics Letters, 2015, 106, .	3.3	18
23	YbN: An intrinsic semiconductor with antiferromagnetic exchange. Physical Review B, 2014, 90, .	3.2	8
24	Europium Nitride: A Novel Diluted Magnetic Semiconductor. Physical Review Letters, 2013, 111, 167206.	7.8	31
25	Optical response of DyN. Journal of Applied Physics, 2013, 113, 203509.	2.5	24
26	Electric field and photo-excited control of the carrier concentration in GdN. Applied Physics Letters, 2013, 102, 132409.	3.3	20
27	Role of magnetic polarons in ferromagnetic GdN. Physical Review B, 2013, 87, .	3.2	40
28	Spin/orbit moment imbalance in the near-zero moment ferromagnetic semiconductor SmN. Physical Review B, 2013, 87, .	3.2	34
29	Effect of annealing on the structural, electrical and magnetic properties of Gd-implanted ZnO thin films. Journal of Materials Science, 2012, 47, 1119-1126.	3.7	69
30	Magnetic state of EuN: X-ray magnetic circular dichroism at the EuM _{4,5} and L _{2,3} absorption edges. Physical Review B, 2011, 83, .	3.2	47
31	Enhanced Curie temperature in N-deficient GdN. Applied Physics Letters, 2011, 98, .	3.3	38
32	Electronic structure of EuN: Growth, spectroscopy, and theory. Physical Review B, 2011, 84, .	3.2	38
33	Structural and photoluminescence properties of Gd implanted ZnO single crystals. Journal of Applied Physics, 2011, 110, .	2.5	76
34	Electronic band structure information of GdN extracted from x-ray absorption and emission spectroscopy. Applied Physics Letters, 2010, 96, 032101.	3.3	22
35	Nearest-neighbor Mn antiferromagnetic exchange in $\text{Ga}_{1-x}\text{Mn}_x\text{N}$. Physical Review B, 2010, 81, .	3.2	30
36	Vibrational properties of rare-earth nitrides: Raman spectra and theory. Physical Review B, 2009, 79, .	3.2	32

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37	Growth and properties of epitaxial GdN. Journal of Applied Physics, 2009, 106, .	2.5	49
38	Near-zero-moment ferromagnetism in the semiconductor SmN. Physical Review B, 2008, 78, .	3.2	39
39	Electronic properties of (Ga,Mn)N thin films with high Mn content. Journal of Applied Physics, 2008, 104, .	2.5	10
40	Comparison between experiment and calculated band structures for DyN and SmN. Physical Review B, 2007, 76, .	3.2	47
41	Ferromagnetic redshift of the optical gap in GdN. Physical Review B, 2007, 76, .	3.2	79
42	Semiconducting ground state of GdN thin films. Physical Review B, 2006, 73, .	3.2	110
43	Ferromagnetic resonance study of GdN thin films with bulk and extended lattice constants. Physical Review B, 2006, 74, .	3.2	34
44	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
45	X-ray absorption spectroscopy in the analysis of GaN thin films. Surface and Interface Analysis, 2003, 35, 719-722.	1.8	24
46	Compositional and structural studies of amorphous GaN grown by ion-assisted deposition. Materials Research Society Symposia Proceedings, 2001, 693, 579.	0.1	3
47	Conductivity, photoconductivity and optical properties of amorphous GaN films. Materials Research Society Symposia Proceedings, 2001, 693, 81.	0.1	3