

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	Semiconducting ground state of GdN thin films. Physical Review B, 2006, 73, .	3.2	110
2	Ferromagnetic redshift of the optical gap in GdN. Physical Review B, 2007, 76, .	3.2	79
3	Structural and photoluminescence properties of Gd implanted ZnO single crystals. Journal of Applied Physics, 2011, 110, .	2.5	76
4	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
5	Nucleation and annihilation of skyrmions in Mn ₂ CoAl observed through the topological Hall effect. Scientific Reports, 2017, 7, 13620.	3.3	51
6	Growth and properties of epitaxial GdN. Journal of Applied Physics, 2009, 106, .	2.5	49
7	Comparison between experiment and calculated band structures for DyN and SmN. Physical Review B, 2007, 76, .	3.2	47
8	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
9	Role of magnetic polarons in ferromagnetic GdN. Physical Review B, 2013, 87, .	3.2	40
10	Near-zero-moment ferromagnetism in the semiconductor SmN. Physical Review B, 2008, 78, .	3.2	39
11	Enhanced Curie temperature in N-deficient GdN. Applied Physics Letters, 2011, 98, .	3.3	38
12	Electronic structure of EuN: Growth, spectroscopy, and theory. Physical Review B, 2011, 84, .	3.2	38
13	Perpendicular magnetic anisotropy in Co ₂ MnGa and its anomalous Hall effect. Applied Physics Letters, 2017, 110, .	3.3	37
14	Ferromagnetic resonance study of GdN thin films with bulk and extended lattice constants. Physical Review B, 2006, 74, .	3.2	34
15	Spin/orbit moment imbalance in the near-zero moment ferromagnetic semiconductor SmN. Physical Review B, 2013, 87, .	3.2	34
16	Vibrational properties of rare-earth nitrides: Raman spectra and theory. Physical Review B, 2009, 79, .	3.2	32
17	Europium Nitride: A Novel Diluted Magnetic Semiconductor. Physical Review Letters, 2013, 111, 167206.	7.8	31
18	Nearest-neighbor Mn antiferromagnetic exchange in $\text{Ga}_{1-x}\text{Mn}_x\text{N}$. Physical Review B, 2010, 81, .	3.2	30

#	ARTICLE	IF	CITATIONS
19	Superconductivity in the ferromagnetic semiconductor samarium nitride. <i>Physical Review B</i> , 2016, 94, .	3.2	25
20	X-ray absorption spectroscopy in the analysis of GaN thin films. <i>Surface and Interface Analysis</i> , 2003, 35, 719-722.	1.8	24
21	Optical response of DyN. <i>Journal of Applied Physics</i> , 2013, 113, 203509.	2.5	24
22	On the ferromagnetic ground state of SmN. <i>Physical Review B</i> , 2016, 93, .	3.2	24
23	Electronic band structure information of GdN extracted from x-ray absorption and emission spectroscopy. <i>Applied Physics Letters</i> , 2010, 96, 032101.	3.3	22
24	NdN: An intrinsic ferromagnetic semiconductor. <i>Physical Review B</i> , 2016, 93, .	3.2	21
25	Electric field and photo-excited control of the carrier concentration in GdN. <i>Applied Physics Letters</i> , 2013, 102, 132409.	3.3	20
26	Highly resistive epitaxial Mg-doped GdN thin films. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	18
27	Nitrogen vacancies and carrier-concentration control in rare-earth nitrides. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	16
28	Carrier-controlled anomalous Hall effect in an intrinsic ferromagnetic semiconductor. <i>Physical Review B</i> , 2017, 96, .	3.2	14
29	Optical spectroscopy of SmN: Locating the π -band conduction band. <i>Physical Review B</i> , 2019, 99, .	3.2	14
30	Twisted phase of the orbital-dominant ferromagnet SmN in a GdN/SmN heterostructure. <i>Physical Review B</i> , 2015, 91, .	3.2	13
31	Anomalous Hall effect in SmN: Influence of orbital magnetism and π -band conduction. <i>Physical Review B</i> , 2018, 98, .	3.2	12
32	Electronic properties of (Ga,Mn)N thin films with high Mn content. <i>Journal of Applied Physics</i> , 2008, 104, .	2.5	10
33	π -band conduction in the magnetic semiconductor NdN. <i>Physical Review B</i> , 2019, 100, .	3.2	10
34	YbN: An intrinsic semiconductor with antiferromagnetic exchange. <i>Physical Review B</i> , 2014, 90, .	3.2	8
35	SmN and DyN: Effect of the nitrogen to rare earth flux ratio on the structural, transport, and magnetic properties. <i>AIP Advances</i> , 2021, 11, .	1.3	8
36	Facile dissociation of molecular nitrogen using lanthanide surfaces: Towards ambient temperature ammonia synthesis. <i>Physical Review Materials</i> , 2020, 4, .	2.4	8

#	ARTICLE	IF	CITATIONS
37	Probing the defect states of LuN ^{δ+} : An experimental and computational study. AIP Advances, 2022, 12, .	1.3	7
38	Electron transport in heavily doped GdN. Physical Review Materials, 2018, 2, .	2.4	6
39	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
40	Tunable magnetic exchange springs in semiconductor GdN/NdN superlattices. Physical Review B, 2019, 100, .	3.2	5
41	Compositional and structural studies of amorphous GaN grown by ion-assisted deposition. Materials Research Society Symposia Proceedings, 2001, 693, 579.	0.1	3
42	Conductivity, photoconductivity and optical properties of amorphous GaN films. Materials Research Society Symposia Proceedings, 2001, 693, 81.	0.1	3
43	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
44	Magneto-resistance of epitaxial GdN films. Journal of Applied Physics, 2020, 128, .	2.5	3
45	GdN/SmN superlattices; influence of a Zeeman/exchange conflict. AIP Advances, 2021, 11, .	1.3	3
46	Contrasting para- and ferro-magnetic responses of (Gd,Dy)N alloys. Applied Physics Letters, 2021, 119, 172406.	3.3	3
47	TO(<i>b</i> ¹) mode resonances in the rare-earth nitrides. AIP Advances, 2022, 12, 075120.	1.3	2