

Thomas Lorenz

List of Publications by Year in descending order

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5,609
citations

81900

39
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71
g-index

145
all docs

145
docs citations

145
times ranked

5112
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin State Transition in LaCoO ₃ Studied Using Soft X-ray Absorption Spectroscopy and Magnetic Circular Dichroism. Physical Review Letters, 2006, 97, 176405.	7.8	471
2	Evidence for a low-spin to intermediate-spin state transition in LaCoO ₃ . Physical Review B, 2002, 66, .	3.2	313
3	Evidence for orbital ordering in LaCoO ₃ . Physical Review B, 2003, 67, .	3.2	222
4	Structure, magnetization, and resistivity of La _{1-x} M _x CoO ₃ (M=Ca, Sr, and Ba). Physical Review B, 2004, 69, .	3.2	213
5	Crystal and magnetic structure of LaTiO ₃ : Evidence for nondegenerate t _{2g} orbitals. Physical Review B, 2003, 68, .	3.2	189
6	Different Look at the Spin State of Co ³⁺ Ions in a CoO ₅ Pyramidal Coordination. Physical Review Letters, 2004, 92, 207402.	7.8	170
7	A ferroelectric quantum phase transition inside the superconducting dome of Sr _{1-x} Ca _x TiO ₃ . Nature Physics, 2017, 13, 643-648.	16.7	160
8	A new multiferroic material: MnWO ₄ . Journal of Physics Condensed Matter, 2006, 18, L471-L475.	1.8	159
9	Spin Blockade, Orbital Occupation, and Charge Ordering in La _{1.5} Sr _{1.5} CoO ₅ . Physical Review Letters, 2009, 102, 116401.	7.8	150
10	Spin-state transition and metal-insulator transition in La _{1-x} Eu _x CoO ₃ . Physical Review B, 2005, 71, .	3.2	137
11	Thermal Conductivity via Magnetic Excitations in Spin-Chain Materials. Journal of Low Temperature Physics, 2007, 147, 387-403.	1.4	125
12	Magnetoelastic coupling in RTiO ₃ (R=La, Nd, Sm, Gd, Y) investigated with diffraction techniques and thermal expansion measurements. Physical Review B, 2007, 75, .	3.2	111
13	Thermal conductivity, thermopower, and figure of merit of La _{1-x} Sr _x CoO ₃ . Physical Review B, 2005, 72, .	3.2	103
14	Evidence for spin-charge separation in quasi-one-dimensional organic conductors. Nature, 2002, 418, 614-617.	27.8	100
15	Pyroxenes: a new class of multiferroics. Journal of Physics Condensed Matter, 2007, 19, 432201.	1.8	96
16	Pressure-induced insulating state in (La, Sr)CoO ₃ . Physical Review B, 2004, 69, .	3.2	94
17	Reexamination of the microscopic couplings of the quasi-one-dimensional antiferromagnet CuGeO ₃ . Physical Review B, 1998, 57, 1102-1107.	3.2	86
18	Dielectric properties and magnetostriction of the collinear multiferroic spinel CdV ₂ O ₄ . Physical Review B, 2007, 75, 040401.	3.2	73

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19	Magnetothermal Transport in the Spin-1/2 Chains of Copper Pyrazine Dinitrate. Physical Review Letters, 2007, 98, 107201.	7.8	67
20	Zero-Field Incommensurate Spin-Peierls Phase with Interchain Frustration in TiOCl. Physical Review Letters, 2005, 95, 097203.	7.8	66
21	Topological quantum phase transition in the Ising-like antiferromagnetic spin chain BaCo ₂ V ₂ O ₈ . Nature Physics, 2018, 14, 716-722.	16.7	66
22	Strong Damping of Phononic Heat Current by Magnetic Excitations in SrCu ₂ (BO ₃) ₂ . Physical Review Letters, 2001, 87, 047202.	7.8	64
23	Determination of the Orbital Moment and Crystal-Field Splitting in LaTiO ₃ . Physical Review Letters, 2005, 94, 056401.	7.8	64
24	Magnetic Correlations in La _{2-x} Sr _x CoO ₄ Studied by Neutron Scattering: Possible Evidence for Stripe Phases. Physical Review Letters, 2009, 102, 057201.	7.8	61
25	Experimental quest for orbital waves. Nature, 2002, 418, 39-40.	27.8	59
26	Diverging Thermal Expansion of the Spin-Ladder System (C ₅ H ₁₂ N) ₂ CuBr ₄ . Physical Review Letters, 2008, 100, 067208.	7.8	55
27	Momentum Dependence of Orbital Excitations in Mott-Insulating Titanates. Physical Review Letters, 2009, 103, 107205.	7.8	55
28	Optical study of orbital excitations in transition-metal oxides. New Journal of Physics, 2005, 7, 144-144.	2.9	54
29	Raman Scattering in the Mott Insulators LaTiO ₃ and YTiO ₃ : Evidence for Orbital Excitations. Physical Review Letters, 2006, 97, 157401.	7.8	51
30	Quantum criticality in the spin-1/2 Heisenberg chain system copper pyrazine dinitrate. Science Advances, 2017, 3, eaao3773.	10.3	50
31	Spin-state order/disorder and metal-insulator transition in GdBaCo ₂ O _{5.5} : experimental determination of the underlying electronic structure. New Journal of Physics, 2012, 14, 123025.	2.9	48
32	Anomalous expansion and phonon damping due to the Co spin-state transition in $R\text{CoO}$	3.2	46
33	Hysteresis effects in the phase diagram of multiferroic GdMnO ₃ . Physical Review B, 2006, 73, .	3.2	44
34	Field-Dependent Thermal Transport in the Haldane Chain Compound NENP. Physical Review Letters, 2008, 100, 137202.	7.8	44
35	Quantum Criticality of an Ising-like Spin-1/2 Antiferromagnetic Chain in a Transverse Magnetic Field. Physical Review Letters, 2018, 120, 207205.	7.8	43
36	Incommensurate Phase of CuGeO ₃ : From Solitons to Sinusoidal Modulation. Physical Review Letters, 1998, 81, 148-151.	7.8	42

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37	Evidence for a large magnetic heat current in insulating layered cuprates. <i>Physical Review B</i> , 2003, 67, .	3.2	40
38	New features in the phase diagram of TbMnO ₃ . <i>New Journal of Physics</i> , 2007, 9, 100-100.	2.9	40
39	Spin-orbit entangled moments in BaMn_2O_7 : A frustrated fcc quantum magnet. <i>Physical Review B</i> , 2019, 100, .	3.2	40
40	Spin-state-driven metal-insulator transition in (La,Sr)CoO ₃ under high-pressure. <i>Physical Review B</i> , 2007, 75, .	3.2	39
41	Primary ferrotoroidicity in antiferromagnets. <i>Physical Review B</i> , 2015, 92, .	3.2	39
42	Superconductivity in SnO: A Nonmagnetic Analog to Fe-Based Superconductors?. <i>Physical Review Letters</i> , 2010, 105, 157001.	7.8	38
43	Anisotropic susceptibility of La ₂ SrCoO ₄ related to the spin states of cobalt. <i>New Journal of Physics</i> , 2008, 10, 023018.	2.9	37
44	Thermodynamic properties of the new multiferroic material (NH ₄) ₂ [FeCl ₅ (H ₂ O)]. <i>New Journal of Physics</i> , 2013, 15, 123001.	2.9	36
45	Magnetic Frustration Induced Formation of the Spin-Peierls Phase in CuGeO ₃ : Experimental Evidence. <i>Physical Review Letters</i> , 1996, 77, 1624-1627.	7.8	35
46	Magnetic phase diagrams, domain switching, and quantum phase transition of the quasi-one-dimensional Ising-like antiferromagnet BaCoV ₂ O ₇ .	3.2	35
47	Mott-Hubbard exciton in the optical conductivity of BaMn_2O_7 .	7.8	35
48	Resistivity and Hall effect of LiFeAs: Evidence for electron-electron scattering. <i>Physical Review B</i> , 2008, 78, .	3.2	34
49	Resistivity and Hall effect of LiFeAs: Evidence for electron-electron scattering. <i>Physical Review B</i> , 2011, 84, .	3.2	34
50	Quantum Critical Dynamics of a Heisenberg-Ising Chain in a Longitudinal Field: Many-Body Strings versus Fractional Excitations. <i>Physical Review Letters</i> , 2019, 123, 067202.	7.8	33
51	Orbital excitations in YTiO ₃ and LaTiO ₃ probed by resonant inelastic soft x-ray scattering. <i>Physical Review B</i> , 2008, 77, .	3.2	32
52	Generalized Anderson's theorem for superconductors derived from topological insulators. <i>Science Advances</i> , 2020, 6, eaay6502.	10.3	32
53	Thermal conductivity and specific heat of the spin-ice compound Dy ₂ Ti ₂ O ₇ .	3.2	31
54	Thermal conductivity and specific heat of the spin-ice compound Dy ₂ Ti ₂ O ₇ .	3.2	30

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55	Magnetic ordering in single crystals of. Journal of Physics Condensed Matter, 1998, 10, L33-L39.	1.8	29
56	Spin Thermal Conductivity of the Haldane Chain Compound Y_2BaNiO_5 . Physical Review Letters, 2006, 97, 115901.	7.8	29
57	Spin-spin correlations of the spin-ladder compound Y_2BaNiO_5 . Physical Review B, 2008, 77, .	3.2	29
58	Magnetic and structural transitions in $La_{1-x}A_xCoO_3$ (A=Ca, Sr, and Ba). Physical Review B, 2009, 79, .	3.2	29
59	Low-temperature crystal structure, specific heat, and dielectric properties of lithium tetraborate $Li_2B_4O_7$. Journal of Applied Physics, 2010, 108, .	2.5	29
60	Resonant inelastic x-ray incarnation of Young's double-slit experiment. Science Advances, 2019, 5, eaav4020.	10.3	29
61	Evidence for a temperature-induced spin-state transition of Co^{3+} in $La_{2-x}Sr_xCoO_4$. Physical Review B, 2011, 83, .	3.2	28
62	Structural and magnetic phase transitions of the compound GeV_4 . Physical Review B, 2008, 77, .	3.2	27
63	Temperature and magnetic-field dependence of the lattice constant in the spin-Peierls cuprate $CuGeO_3$ studied by capacitance dilatometry in fields up to 16 T. Physical Review B, 1997, 55, 5914-5928.	3.2	26
64	Dimerization and Charge Order in Hollandite $K_2V_8O_{16}$. Physical Review	7.8	26
65	ladder compound Y_2BaNiO_5		

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73	Antiferromagnetic Heisenberg S=5/2 spin chain compound SrMn ₂ V ₂ O ₈ . Journal of Magnetism and Magnetic Materials, 2011, 323, 2575-2578.	2.3	20
74	Nematic superconductivity in $Cu_{1-x}Bi_x$. Physical Review B, 2018, 98, .	2.0	20
75	Crystal structure and the Mott-Hubbard gap in YTiO ₃ at high pressure. Journal of Physics Condensed Matter, 2007, 19, 406223.	1.8	19
76	Melting of magnetic correlations in charge-orbital ordered $La_{1-x}Mn_xO_3$. Physical Review B, 2008, 77, .	3.2	19
77	Spin-Orbital Excitation Continuum and Anomalous Electron-Phonon Interaction in the Mott Insulator $LaTiO_3$. Physical Review B, 2015, 91, 040407.	7.8	19
78	Magnetostrictive NAO Ordering of the spin-compound BaMn ₅ O ₁₂ . Physical Review B, 2005, 72, 040407.	3.2	18
79	Nature of low-temperature phase transitions in CaMn ₇ O ₁₂ . JETP Letters, 2005, 82, 444-446.	1.4	17
80	Eight-Coordinate Endohedral Rhenium, Osmium and Iridium Atoms in Rare-Earth Halide Cluster Complexes. European Journal of Inorganic Chemistry, 2010, 2010, 2613-2619.	2.0	17
81	Anisotropic heat transport via monopoles in the spin-ice compound Dy ₂ Ti ₂ O ₇ . Physical Review B, 2013, 88, 080407.	3.2	17
82	Substitution effects on the temperature versus magnetic field phase diagrams of the quasi-one-dimensional effective Ising spin system $BaCo_{1-x}V_xO_{2-x}$. Physical Review B, 2017, 95, 040407.	3.2	15
83	Magnetic shape-memory effect in $SrRuO_3$. Physical Review B, 2017, 96, .	3.2	15
84	Heat transport in SrCu ₂ (BO ₃) ₂ and CuGeO ₃ . Physica B: Condensed Matter, 2002, 312-313, 597-599.	2.7	14
85	Structural Aspects of Metamagnetism in $Ca_{2-x}Sr_xRuO_4$: Evidence for Field Tuning of Orbital Occupation. Physical Review Letters, 2005, 95, 267403.	7.8	14
86	Electronic structure of $RAuMg$ and $RAgMg$ (R=Eu,Gd,Yb). Physical Review B, 2006, 74, .	3.2	14
87	Phase diagram and isotope effect in $(Pr_{1-y}Eu_y)_0.7Ca_{0.3}CoO_3$ cobaltites exhibiting spin-state transitions. Physical Review B, 2010, 81, 040407.	3.2	14
88	Pressure-induced quantum phase transition in $Fe_{1-x}Co_xO_2$. Physical Review B, 2014, 89, 040407.	3.2	14
89	Magnetolectric properties of $A_{2-x}B_x[FeCl_5](H_2O)_2$ with $A = K, Rb, Cs$. Journal of Physics Condensed Matter, 2014, 26, 506002.	1.8	14
90	Magnetoelastic Coupling Across the Metamagnetic Transition in $Ca_{2-x}Sr_xRuO_4$. Physical Review B, 2010, 81, 040407.	1.4	13

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91	Heat transport of the spin-ice materials $\text{Ho}_2\text{Zr}_2\text{Si}_7\text{O}_{22}$ http://www.w3.org/1998/Journal of Magnetism and Magnetic Materials , 2015, 303, 83-87.	3.2	12
92	Specific heat, thermal expansion, and pressure dependencies of the transition temperatures of doped CuGeO_3 . <i>Physical Review B</i> , 1997, 56, R501-R504.	3.2	12
93	Spin-Peierls order parameter and antiferromagnetism in the dimerized and incommensurate phases of Zn-doped CuGeO_3 . <i>Physical Review B</i> , 1999, 59, 6886-6907.	3.2	12
94	Ferroelectric order versus metallicity in $\text{Sr}_1\text{Ca}_{1-x}\text{La}_x\text{Ti}_2\text{O}_7$		



#	ARTICLE	IF	CITATIONS
109	Eu(O ₂ Ca ₂ CO ₂): An Eu II Containing Anhydrous Coordination Polymer with High Stability and Negative Thermal Expansion. Chemistry - A European Journal, 2020, 26, 2726-2734.	3.3	7
110	Nernst effect in NdBa ₂ {Cu _{1-y} Niy}3O _{7-x} (y=0-0.12). Physical Review B, 2007, 76, .	3.2	6
111	Magnetothermal evidence of a partial gap at the Fermi surface of UPt ₂ Si ₂ . Physical Review B, 2008, 78, .	3.2	6
112	Evidence for multiple phase transitions in. Journal of Magnetism and Magnetic Materials, 2007, 310, e187-e189.	2.3	5
113	Magnetostriction of the spin-Peierls cuprate CuGeO ₃ . Zeitschrift für Physik B-Condensed Matter, 1996, 102, 71-82.	1.1	4
114	Thermodynamic properties of in magnetic fields. Physica B: Condensed Matter, 2006, 378-380, 497-498.	2.7	4
115	Magnetoelectric coupling in a frustrated spinel studied using high-field scanning probe microscopy. Applied Physics Letters, 2020, 116, .	3.3	4
116	Observation of chiral solitons in LiCuVO ₄ . Communications Physics, 2022, 5, .	5.3	4
117	Uniaxial pressure dependencies of the phase boundary of TiCuCl ₃ . Physica B: Condensed Matter, 2006, 378-380, 1043-1044.	2.7	3
118	Thermal conductivity of , with , Pr, and Gd. Physica B: Condensed Matter, 2006, 378-380, 1064-1065.	2.7	2
119	Thermal expansion of the magnetically ordering intermetallics RTMg (R = Eu, Gd and T = Ag, Au). Journal of Physics Condensed Matter, 2007, 19, 486204.	1.8	2
120	Dependence of the magnetic ordering temperature on hydrostatic pressure for the ternary intermetallic compounds GdAgMg, GdAuMg, EuAgMg, and EuAuMg. Physical Review B, 2010, 81, .	3.2	2
121	Hysteresis and Relaxation Effects in the Spin-Ice Compound Dy ₂ Ti ₂ O ₇ Studied by Heat Transport. , 2014, , .		2
122	Multiple field-induced phases in the frustrated triangular magnet $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mi} \rangle \text{Cs} \langle \text{mml:mi} \rangle \langle \text{mml:mfrac} \langle \text{mml:mn} \langle \text{mml:m} \rangle \langle \text{mml:m} \rangle \langle \text{mml:mn} \rangle \langle \text{mml:m} \rangle \rangle \rangle \rangle$. Physical Review B, 2021, 104, .	3.3	2
123	Thermal expansion of a La _{1.87} Sr _{0.13} CuO ₄ single crystal at T _c in high magnetic fields. Physica C: Superconductivity and Its Applications, 1994, 235-240, 1931-1932.	1.2	1
124	Layer selective magnetometry in ultrathin magnetic structures by polarised neutron reflection. Journal of Magnetism and Magnetic Materials, 1997, 170, 46-51.	2.3	1
125	Magnetic frustration and spin-Peierls transition in CuGeO ₃ . , 1999, , 301-310.		1
126	Sequence of phase transitions in a quasi-one-dimensional $\hat{\Gamma}^2$ -Na _{0.33} V ₂ O ₅ compound with variable valence. JETP Letters, 2004, 79, 542-544.	1.4	1

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127	Reply to the comment "Nature of low-temperature..." JETP Letters, 2006, 83, 222-222.	1.4	1
128	Thermodynamic properties of the field-induced Néel order of. Journal of Magnetism and Magnetic Materials, 2007, 310, 1374-1376.	2.3	1
129	Magnetic field-dependent thermal transport in a spin-1/2 chain compound. Physica B: Condensed Matter, 2008, 403, 1445-1446.	2.7	1
130	Isotope effect and characteristic features of the phase diagram for cobaltites with spin-state transitions. Journal of Experimental and Theoretical Physics, 2010, 111, 189-193.	0.9	1
131	Single-crystal investigations on the multiferroic material LiFe(WO ₄) ₂ . Physical Review B, 2021, 103, .	3.2	1
132	Thermal Expansion of La _{1.85} Sr _{0.15} CuO ₄ in Magnetic Fields up to 14 Tesla. Journal of Low Temperature Physics, 1999, 117, 1453-1457.	1.4	0
133	Thermal properties of NaV ₂ O ₅ . Journal of Magnetism and Magnetic Materials, 2003, 258-259, 398-400.	2.3	0
134	The phase-diagram of Ca _{2-x} Sr _x RuO ₄ : Relation between crystal distortions and physical properties. Materials Research Society Symposia Proceedings, 2004, 840, Q4.1.1.	0.1	0
135	Spin thermal conductivity of the Haldane chain compound. Journal of Magnetism and Magnetic Materials, 2007, 310, 1245-1247.	2.3	0
136	Crystal structure of Li ₂ B ₄ O ₇ . Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s167-s168.	0.3	0
137	Phase diagram and isotope effect in cobaltites with spin-state transitions. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 1345-1347.	0.6	0
138	Phase Diagram of Spin States and Magnetic Interactions in Isotope Substituted (Pr,Eu) _{0.7} Ca _{0.3} CoO ₃ . Solid State Phenomena, 0, 168-169, 465-468.	0.3	0
139	The phase diagram of Ca _{2-x} Sr _x RuO ₄ : crystal structure and physical properties. Acta Crystallographica Section A: Foundations and Advances, 2005, 61, c13-c13.	0.3	0
140	Metal-insulator transitions in RE _{1-x} MxTiO ₃ : evidence for charge order-stabilizing an insulating phase. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s174-s174.	0.3	0