

Helen C Walker

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

2,928
citations

147801

31
h-index

182427

51
g-index

102
all docs

102
docs citations

102
times ranked

3734
citing authors

#	ARTICLE	IF	CITATIONS
1	Field-tuned quantum effects in a triangular-lattice Ising magnet. Science Bulletin, 2022, 67, 38-44.	9.0	5
2	Frustration model and spin excitations in the helimagnet FeP. Physical Review B, 2022, 105, .	3.2	7
3	Crystal-field states and defect levels in candidate quantum spin ice O_7 . Physical Review Materials, 2022, 6, .	2.4	6
4	Randomness and frustration in a square-lattice Heisenberg antiferromagnet. Physical Review B, 2022, 105, .	3.2	6
5	Order-by-disorder from bond-dependent exchange and intensity signature of nodal quasiparticles in a honeycomb cobaltate. Nature Communications, 2021, 12, 3936.	12.8	38
6	Low thermal conductivity in a modular inorganic material with bonding anisotropy and mismatch. Science, 2021, 373, 1017-1022.	12.6	76
7	Magnetic correlations in the triangular antiferromagnet FeGa ₂ S ₄ . Physical Review B, 2021, 104, .	3.2	2
8	Metastable antiphase boundary ordering in $\text{Ca}_4\text{Fe}_8\text{O}_{12}$. Physical Review B, 2021, 104, .	3.2	8
9	Neutron Scattering Studies of the Breathing Pyrochlore Antiferromagnet $\text{LiGaCr}_4\text{O}_{12}$. From One- to Two-Magnon Excitations in the $\text{LiGaCr}_4\text{O}_{12}$.	7.8	4
10	Magnet S_3 Magnet I_2 Magnet CaCr_2	7.8	5
11	Magnetic Order and crystalline electric field excitations of the quantum critical heavy-fermion ferromagnet CeRh_2Si_2 . Physical Review B, 2021, 104, .	3.2	9
12	Diamagnetic d-Orbitals Drive Magnetic Structure Selection in the Double Perovskite $\text{Ba}_2\text{MnTeO}_6$. Chemistry of Materials, 2020, 32, 7070-7079.	6.7	15
13	Orbital selective spin waves in detwinned NaFeAs. Physical Review B, 2020, 102, .	3.2	8
14	Evidence for biquadratic exchange in the quasi-two-dimensional antiferromagnet FePS ₃ . Journal of Applied Physics, 2020, 127, .	2.5	14
15	Exchange Interactions Mediated by Nonmagnetic Cations in Double Perovskites. Physical Review Letters, 2020, 124, 077202.	7.8	23
16	Long- and short-range magnetism in the frustrated double perovskite $\text{B}_2\text{aMn}_2\text{W}_6\text{O}_{26}$. Physical Review Materials, 2020, 4, .	2.4	9
17	Lattice dynamics in the double-helix antiferromagnet FeP. Physical Review Research, 2020, 2, .	3.6	4
18	Long-range magnetic order in the $S=1/2$ triangular lattice antiferromagnet KCeS_2 . SciPost Physics, 2020, 9, .	4.9	16

#	ARTICLE	IF	CITATIONS
19	Plaquette instability competing with bicollinear ground state in detwinned FeTe. Physical Review B, 2019, 100, .	3.2	7
20	Magnon-polaron excitations in the noncollinear antiferromagnet Mn ₃ Ge. Physical Review B, 2019, 99, .	3.2	18
21	Critical fluctuations in the spin-orbit Mott insulator Sr ₃ Ir ₂ O ₇ . Journal of Physics Condensed Matter, 2019, 31, 185803.	1.8	2
22	Spin fluctuation anisotropy as a probe of orbital-selective hole-electron quasiparticle excitations in detwinned BaMn ₂ O ₇ . Physical Review B, 2019, 100, .	3.2	10
23	Gapless spin-liquid state in the structurally disorder-free triangular antiferromagnet NaYbO ₂ . Physical Review B, 2019, 100, .	3.2	10
24	Multiphase competition in the quantum XY pyrochlore antiferromagnet CdYb ₂ Mn ₂ O ₁₀ : Zero and applied magnetic field study. Physical Review B, 2019, 100, .	3.2	10
25	The effect of particle size, morphology and support on the formation of palladium hydride in commercial catalysts. Chemical Science, 2019, 10, 480-489.	7.4	43
26	Weaker nematic phase connected to the first order antiferromagnetic phase transition in SrFe ₂ compared to BaFe ₂ . Physical Review B, 2019, 99, .	3.2	5
27	Intermultiplet transitions and magnetic long-range order in Sm-based pyrochlores. Physical Review B, 2019, 99, .	3.2	9
28	Large easy-axis anisotropy in the one-dimensional magnet BaMoO ₄ . Physical Review B, 2019, 100, .	3.2	10
29	Spin-liquid-like state in a spin-1/2 square-lattice antiferromagnet perovskite induced by d ₁₀ cation mixing. Nature Communications, 2018, 9, 1085.	12.8	81
30	Magnetic excitations in non-collinear antiferromagnetic Weyl semimetal Mn ₃ Sn. Npj Quantum Materials, 2018, 3, .	5.2	45
31	Spin dynamics of coupled spin ladders near quantum criticality in BaMn ₂ O ₇ . Physical Review B, 2018, 98, .	3.2	119
32	A planar spin-1 triangular lattice magnet and putative spin liquid. Physical Review B, 2018, 98, .	3.2	119
33	Anomalous Metamagnetism in the Low Carrier Density Kondo Lattice YbRh ₃ . Physical Review X, 2018, 8, .	8.9	12
34	Magnetic excitations in the bulk multiferroic two-dimensional triangular lattice antiferromagnet Lu ₂ VO ₄ . Physical Review B, 2018, 98, .	3.2	18
35	Fractionalized excitations in the partially magnetized spin liquid candidate YbMgGaO ₄ . Nature Communications, 2018, 9, 4138.	12.8	49
36	Coexistence of magnetic fluctuations and long-range order in the one-dimensional zigzag chain materials JBaDy ₂ O ₂ . Physical Review B, 2018, 98, .	3.2	5

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37	Vesignieite: An Kagome Antiferromagnet with Dominant Third-Neighbor Exchange. Physical Review Letters, 2018, 121, 077201. arXiv:1805.02511	7.8	31
38	Tuning the square-lattice antiferromagnet $S=1$ spin-1 chain. Physical Review Letters, 2018, 121, 077202. arXiv:1805.02512		

#	ARTICLE	IF	CITATIONS
55	the pyrochlore spin liquid importance of in by magnetic critical scattering experiments. Physical Review B, 2015, 92, .	3.2	41
56	Absence of superconductivity in fluorine-doped neptunium pnictide NpFeAsO. Journal of Physics Condensed Matter, 2015, 27, 325702.	1.8	7
58	Long-range antiferromagnetic order of formally nonmagnetic Eu ³⁺ and Van Vleck ions observed in multiferroic Eu ²⁺ xYxMnO ₃ . Physical Review B, 2015, 91, .	3.2	5
59	Competing Exchange Interactions on the Verge of a Metal-Insulator Transition in the Two-Dimensional Spiral Magnet Circularly polarized x-ray scattering investigation of spin-lattice coupling in TbMnO ₃ in crossed electric and magnetic fields. Physical Review B, 2013, 88, .	3.2	13
60	237Np Mössbauer effect study on NpFeAsO. Journal of Physics Condensed Matter, 2014, 26, 156002.	1.8	2
61	Chiral properties of hematite Circularly polarized x-ray scattering investigation of spin-lattice coupling in TbMnO ₃ in crossed electric and magnetic fields. Physical Review B, 2013, 88, .	3.2	13
62	Robustness of Basal-Plane Antiferromagnetic Order and the Locking of iridium magnetic moments to the correlated rotation of oxygen octahedra in Sr ₂ IrO ₄ revealed by x-ray resonant scattering. Journal of Physics Condensed Matter, 2013, 25, 422202.	3.2	11
63	Measuring radioactive powder samples on the high-resolution powder diffraction beamline at the European Synchrotron Radiation Facility. Journal of Applied Crystallography, 2013, 46, 567-569.	7.8	107
64	Effect of surface polishing and oxidization induced strain on electronic order at the Verwey transition in Fe ₃ O ₄ . Journal of Physics Condensed Matter, 2013, 25, 055603.	1.8	9
65	Antiferromagnetism in UO ₂ thin epitaxial films. Physical Review B, 2013, 88, .	3.2	27
66	On the magnetic structure of Sr ₃ Ir ₂ O ₇ : an x-ray resonant scattering study. Journal of Physics Condensed Matter, 2012, 24, 312202.	1.8	41
67	Bulk properties and electronic structure of PuFeAsO. Physical Review B, 2012, 86, .	3.2	71
68	Negative thermal expansion and antiferromagnetism in the actinide oxyaptnictide NpFeAsO. Physical Review B, 2012, 85, .	3.2	15
69	Ho and Fe magnetic ordering in multiferroic HoFe ₃ (BO ₃) ₂ Tj ETQqO ₀ 0 rgBT /Overlock 10 Tf 50 67 Td	3.2	34
70		3.2	17
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72			

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73	Magnetic structure of DyMn ₂ O ₅ determined by resonant x-ray scattering. Physical Review B, 2012, 85, .	3.2	12
74	Role of intrinsic disorder in the structural phase transition of magnetoelectric EuTiO ₃ . Physical Review B, 2012, 85, .	3.2	96
75	REXS contribution to electronic ordering investigation in solids. European Physical Journal: Special Topics, 2012, 208, 89-98.	2.6	19
76	EuTiO ₃ magnetic structure studied by neutron powder diffraction and resonant x-ray scattering. Physical Review B, 2012, 86, .	3.2	46
77	Strong coupling of Sm and Fe magnetism in SmFeAsO as revealed by magnetic x-ray scattering. Physical Review B, 2011, 84, .	3.2	33
78	Femtosecond Magnetically Induced Lattice Distortions in Multiferroic TbMnO ₃ . Science, 2011, 333, 1273-1276.	12.6	85
79	EuFe ₂ As ₂ : Magnetic Structure and Local Charge Distribution Anisotropies as Seen by Resonant X-ray Scattering. Journal of Superconductivity and Novel Magnetism, 2011, 24, 705-709.	1.8	4
80	Synthesis and characterization of large single crystals of NpPd ₃ by flux method. Journal of Crystal Growth, 2011, 320, 52-54.	1.5	1
81	Resonant x-ray scattering study of the URu ₂ Si ₂ hidden-order phase. Physical Review B, 2011, 83, .	3.2	30
82	f _d delocalization-induced suppression of quadrupolar order in U(Pd _{1-x} Pt _x) ₃ . Physical Review B, 2011, 84, .	3.2	6
83	Electric field control of multiferroic domains in NiMn ₃ by x-ray polarization-enhanced topography. Physical Review B, 2010, 82, .	3.2	24
84	X-ray resonant scattering study of the structural and magnetic transitions in PrB ₆ . Physical Review B, 2009, 79, .	3.2	10
85	Circularly Polarized X Rays as a Probe of Noncollinear Magnetic Order in Multiferroic TbMnO ₃ . Physical Review Letters, 2009, 102, 237205.	7.8	42
86	Nature of the Magnetic Order and Origin of Induced Ferroelectricity in TbMnO ₃ . Physical Review Letters, 2009, 103, 207602.	7.8	57
87	X-ray resonant scattering study of the magnetic phase diagram of multiferroic TbMnO ₃ . Physica B: Condensed Matter, 2009, 404, 3264-3266.	2.7	5
88	X-ray resonant scattering determination of the antiferroquadrupolar ordering in UPd ₃ at low temperatures. Journal of Physics Condensed Matter, 2008, 20, 395221.	1.8	14
89	Photoelectron spectroscopy of NpPd ₃ and PuPd ₃ . Journal of Physics Condensed Matter, 2008, 20, 275220.	1.8	3
90	X-ray resonant diffraction study of multiferroic DyMn ₂ O ₅ . Physical Review B, 2008, 77, .	3.2	31

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91	Ordering of localized electronic states in multiferroic TbMnO_3 : a soft x-ray resonant scattering study. Journal of Physics Condensed Matter, 2008, 20, 422205.	1.8	17
92	Observation of two spin gap energies in the filled skutterudite compound $\text{CeOs}_4\text{Sb}_{12}$. Physical Review B, 2007, 75, . . . electrical properties of dhcp	3.2	21
93	Np_3Pd_3 and Np_3Pd_3		