

David C Johnston

List of Publications by Year in descending order

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118
papers

6,290
citations

117453

34
h-index

66788

78
g-index

119
all docs

119
docs citations

119
times ranked

5046
citing authors

#	ARTICLE	IF	CITATIONS
1	The puzzle of high temperature superconductivity in layered iron pnictides and chalcogenides. <i>Advances in Physics</i> , 2010, 59, 803-1061.	35.9	1,549
2	Destruction of Superconductivity at the Onset of Long-Range Magnetic Order in the Compound ErRh4B4. <i>Physical Review Letters</i> , 1977, 38, 987-990.	2.9	545
3	LiV2O4: A Heavy Fermion Transition Metal Oxide. <i>Physical Review Letters</i> , 1997, 78, 3729-3732.	2.9	453
4	Structural and magnetic studies of Sr2IrO4. <i>Physical Review B</i> , 1994, 49, 9198-9201.	1.1	381
5	Stretched exponential relaxation arising from a continuous sum of exponential decays. <i>Physical Review B</i> , 2006, 74, .	1.1	350
6	Magnetic order in BaMn_2As_2 from neutron diffraction measurements. <i>Physical Review B</i> , 2009, 80, .		
7	A case study of the BaMn_2As_2 : A case study of the	1.1	131
8	Thermodynamics of the Spin-1/2 Antiferromagnetic Uniform Heisenberg Chain. <i>Physical Review Letters</i> , 2000, 84, 4701-4704.	2.9	110
9	Magnetic, transport, and thermal properties of single crystals of the layered arsenide BaMn_2As_2 . <i>Physical Review B</i> , 2009, 79, .	1.1	104
10	Elaboration of the \hat{t}_\pm -model derived from the BCS theory of superconductivity. <i>Superconductor Science and Technology</i> , 2013, 26, 115011.	1.8	101
11	Intercalation and staging behavior in super-oxygenated $\text{La}_2\text{CuO}_4 + \hat{\gamma}$. <i>Zeitschrift für Physik B-Condensed Matter</i> , 1996, 100, 535-545.	1.1	88
12	Structural, thermal, magnetic, and electronic transport properties of the LaNi_2As_2		

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19	Magnetic Susceptibility of Collinear and Noncollinear Heisenberg Antiferromagnets. Physical Review Letters, 2012, 109, 077201.	2.9	63
20	Heat capacity of single-crystal La_2CuO_4 and polycrystalline $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ (0 ≤ x ≤ 0.20) from 110 to 600 K. Physical Review B, 1991, 43, 239-246.	1.1	62
21	Magnetic dipole interactions in crystals. Physical Review B, 2016, 93, .	1.1	60
22	Superconducting and normal-state properties of PdA_2 . Physical Review B, 2016, 93, .	1.1	59
23	Unified molecular field theory for collinear and noncollinear Heisenberg antiferromagnets. Physical Review B, 2015, 91, .	1.1	57
24	Crystal and magnetic structure of CaCo_2 studied by x-ray and neutron diffraction. Physical Review B, 2014, 89, .	1.1	47
25	Stripe Antiferromagnetic Spin Fluctuations in SrCo_2As_2 . Physical Review Letters, 2013, 111, 157001.	2.9	47
26	Superconductivity of transition metal sulfides, selenides, and phosphides with the NaCl structure. Journal of Low Temperature Physics, 1978, 33, 175-203.	0.6	44
27	Physical properties of metallic antiferromagnetic CaCo_2 . Physical Review B, 2014, 89, .	1.1	44
28	Spin Correlations and Magnetic Field Effects in the Weakly Anisotropic Square-Lattice Antiferromagnet $\text{Sr}_2\text{CuO}_2\text{Cl}_2$. Physical Review Letters, 1995, 75, 2212-2215.	2.9	42
29	Experimental evidence of a collinear antiferromagnetic ordering in the frustrated CoAl_2O_4 spinel. Physical Review B, 2013, 88, .	1.1	41
30	Vortex dynamics and frustration in two-dimensional triangular chromium lattices. Physical Review B, 2009, 80, .	1.1	37
31	Persistence of local-moment antiferromagnetic order in $\text{Ba}_1-x\text{K}_x\text{Mn}_2\text{As}_2$. Physical Review B, 2013, 87, .	1.1	36
32	Dynamics of Magnetic Defects in Heavy Fermion LiV_2O_4 from Stretched Exponential ^1Li NMR Relaxation. Physical Review Letters, 2005, 95, 176408.	2.9	35
33	Magneto-thermal and transport properties of layered arsenides BaRu_2As_2 and SrRu_2As_2 . Physical Review B, 2015, 91, .	1.1	35
34	Antiferromagnetism in EuCu_2P and EuCu_2As crystals. Physical Review B, 2015, 91, .	1.1	35
35	Model molecular-field helical Heisenberg antiferromagnet. Physical Review B, 2016, 94, .	1.1	35
36	Competing Magnetic Fluctuations in Iron Pnictide Superconductors: Role of Ferromagnetic Spin Correlations Revealed by NMR. Physical Review Letters, 2015, 115, 137001.	2.9	34

#	ARTICLE	IF	CITATIONS
37	Synthesis, structure, and properties of tetragonal <code><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"</code>		

#	ARTICLE	IF	CITATIONS
55	Enhanced moments of Eu in single crystals of the metallic helical antiferromagnet EuCo_2As_2 . Physical Review B, 2018, 97, .		
56	Magnetic ordering in EuRh_2As_2 by x-ray resonant magnetic scattering. Physical Review B, 2009, 79, .		
57	Non-Fermi-liquid types of behavior associated with a magnetic quantum critical point in $\text{Sr}_2\text{VO}_2\text{As}_2$. Physical Review B, 2019, 100, .		
58	NMR determination of an incommensurate helical antiferromagnetic structure in EuCo_2As_2 . Physical Review B, 2017, 95, .		
59	Collinear antiferromagnetism in trigonal SrMn_2As_2 revealed by single-crystal neutron diffraction. Journal of Physics Condensed Matter, 2017, 29, 035802. Crystallography, magnetic susceptibility, heat capacity, and electrical resistivity of heavy-fermion Li_2VO_2 single crystals grown using a self-flux technique. Physical Review B, 2007, 76, .	0.7	17
60	Pressure-induced collapsed-tetragonal phase in SrCo_2As_2 . Physical Review B, 2015, 92, .	1.1	16
61	Itinerant G-type antiferromagnetic order in SrCr_2As_2 . Physical Review B, 2017, 96, .	1.1	16
62	Helical antiferromagnetic ordering in EuNi_2As_2 single crystals. Physical Review B, 2019, 100, .		
63	Metal-insulator transition in antiferromagnetic $\text{Ba}_{1-x}\text{K}_x\text{Mn}_2\text{As}_2$ (0 ≤ x ≤ 0.4) single crystals studied by ^{55}Mn and ^{75}As NMR. Physical Review B, 2013, 88, .	1.1	15
64	Zero-field magnetic ground state of EuMg_2As_2 . Physical Review B, 2021, 103, .		
65	Unusual magnetic, thermal, and transport behavior of single-crystalline EuRh_2As_2 . Physical Review B, 2009, 79, .	1.1	14
66	Volovik effect and Fermi-liquid behavior in the s -wave superconductor CaPd_2As_2 . Physical Review B, 2016, 93, .	1.1	14
67	Structural, magnetic, thermal, and electronic transport properties of single-crystal EuPd_2As_2 . Physical Review B, 2010, 81, .	1.1	13
68	Metallic behavior induced by potassium doping of the trigonal antiferromagnetic insulator EuMn_2As_2 . Physical Review B, 2016, 94, .	1.1	13
69	Anomalous Composition-Induced Crossover in the Magnetic Properties of the Itinerant-Electron Antiferromagnet $\text{Ca}_{1-x}\text{Sr}_x\text{Co}_2\text{As}_2$. Physical Review Letters, 2017, 119, 257203.	2.9	13
70	Y_3MnAu_5 : Three Distinctive <i>d</i> -Metal Functions in an Intergrown Cluster Phase. Journal of the American Chemical Society, 2013, 135, 910-917.	6.6	12
71	Physical properties of EuPd_2As_2 single crystals. Journal of Physics Condensed Matter, 2014, 26, 286002.	0.7	12

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73	Competing magnetic phases and itinerant magnetic frustration in SrCo ₂ As ₂ . Physical Review B, 2019, 100, .	1.1	12
74	Ferromagnetic cluster-glass phase in Ca(Co _{1-x} R _x) ₂ As ₂ crystals. Physical Review B, 2020, 102, .	1.1	12
75	Observation of a phase transition at 55 K in single-crystal CaCu _{1.7} As ₂ . Physical Review B, 2012, 86, .	1.1	11
76	Superconductivity and physical properties of CaPd ₂ Ge ₂ single crystals. Journal of Physics Condensed Matter, 2014, 26, 405702.	0.7	11
77	Suppression of magnetic order in CaCo _{1.86} As ₂ with Fe substitution: Magnetization, neutron diffraction, and x-ray diffraction studies of Ca(Co _{1-x} Fex) ₂ As ₂ . Physical Review B, 2017, 95, .	1.1	11
78	Antiferromagnetic stacking of ferromagnetic layers and doping-controlled phase competition in Ca _{1-x} Mn _x As ₂ . Physical Review B, 2019, 100, .	1.1	11
79	A-type antiferromagnetic order and magnetic phase diagram of the trigonal Eu spin-7/2 triangular-lattice compound EuSn ₂ As ₂ . Physical Review B, 2021, 104, .	1.1	11
80	Taking Advantage of Gold's Electronegativity in Au _{10+x} (R = Gd or Y; 0.2 at%) Tj ETQq 0 0 rgBT /Overlo	1.1	11
81	Helical antiferromagnetic ordering in Lu _{1-x} Sc _x MnSi. Physical Review B, 2014, 90, .	1.1	10
82	Helical magnetic ordering in Sr _{1-x} Ca _x As ₂ . Physical Review B, 2019, 100, .	1.1	10
83	Magnetic phase transitions in Eu _{1-x} Td _x As ₂ . Physical Review Materials, 2020, 4, .	0.9	10
84	Magnetic penetration depth in V ₃ Si and LiTi ₂ O ₄ measured by ¹ / ₄ SR. Hyperfine Interactions, 1994, 86, 615-621.	0.2	9
85	Ba _{0.4} Rb _{0.6} Mn ₂ As ₂ : A prototype half-metallic ferromagnet. Physical Review B, 2015, 92, .	1.1	9
86	NMR studies of the incommensurate helical antiferromagnet EuCo ₂ P ₂ : Determination of antiferromagnetic propagation vector. Physical Review B, 2017, 96, .	1.1	9
87	Robust antiferromagnetic spin waves across the metal-insulator transition in hole-doped BaMn ₂ As ₂ . Physical Review B, 2017, 95, .	1.1	9
88	The magnetic structure of EuCu ₂ Sb ₂ . Journal of Physics Condensed Matter, 2015, 27, 206002.	0.7	8
89	Magnetic structure and magnetization of z-axis helical Heisenberg antiferromagnets with XY anisotropy in high magnetic fields transverse to the helix axis at zero temperature. Physical Review B, 2019, 99, .	1.1	8
90	First-order antiferromagnetic transitions of SrMn ₂ P ₂ and CaMn ₂ P ₂ single crystals containing corrugated-honeycomb Mn sublattices. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	8

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91	Multiple crossovers between positive and negative magnetoresistance versus field due to fragile spin structure in metallic GdPd ₃ . Scientific Reports, 2017, 7, 42789.	1.6	7
92	CsMn ₄ As ₃ : A Layered Tetragonal Transition-Metal Pnictide Compound with an Antiferromagnetic Ground State. Inorganic Chemistry, 2018, 57, 3206-3214.	1.9	7
93	Topological electronic structure of YbMg ₂ Bi ₂ and CaMg ₂ Bi ₂ . Npj Quantum Materials, 2022, 7, .	1.8	7
94	Magnetic and thermal properties of the $S = 1$ zig-zag spin-chain compound $\text{In}_{1-x}\text{Mn}_x\text{Mg}_2$		
95	Magnetic susceptibility of frustrated spin- $S = 1/2$ quantum Heisenberg magnets: High-temperature expansion and exact diagonalization data. Journal of Physics: Conference Series, 2014, 529, 012023.	0.3	5
96	Influence of classical anisotropy fields on the properties of Heisenberg antiferromagnets within unified molecular field theory. Physical Review B, 2017, 96, .	1.1	5
97	The far-infrared conductivity of oxide superconductors. Ferroelectrics, 1996, 177, 83-94.	0.3	4
98	Magnetic, thermal, and transport properties of the mixed-valent vanadium oxides LuV_4S_4	1.1	4
99	Electronic structure of copper pnictides: Influence of different cations and pnictogens. Physical Review B, 2013, 88, .	1.1	4
100	Thermodynamics of the noninteracting Bose gas in a two-dimensional box. Physical Review E, 2015, 92, 062109.	0.8	4
101	Magnetic detwinning and biquadratic magnetic interaction in EuFe_2As_2 revealed by NMR. Physical Review B, 2020, .	1.1	4
102	Molecular-field-theory fits to magnetic susceptibilities of antiferromagnetic GdCu ₂ Si ₂ , CuO, LiCrO ₂ , and CaCr_2O_4 single crystals below their Néel temperatures. Journal of Magnetism and Magnetic Materials, 2021, 535, 168062.	1.0	4
103	Noninteracting electrons in a prototypical one-dimensional sinusoidal potential. American Journal of Physics, 2020, 88, 1109-1122.	0.3	2
104	Short-range ferromagnetic order due to Ir substitutions in single-crystalline $\text{Ba}(\text{Co}_{1-x}\text{Ir}_x)_2\text{As}_2$ ($0 \leq x \leq 1/2$). <i>Journal of Applied Physics</i> , 2017, 121, 074101.	0.7	2
105	Electron-phonon coupling enhancement and displacive magnetostructural transition in SrCr ₂ As ₂ itinerant G-type antiferromagnet	0.7	2
106	SrCr_2As_2 studied by magnetization, heat capacity, electrical resistivity, and NMR measurements. Physical Review B, 2022, .	1.1	2
107	Phase separation kinetics in La ₂ CuO ₄ and inhomogeneous hole doping in the antiferromagnetic regime ($0 < x < 0.02$) of La _{2-x} Sr _x CuO ₄ . Journal of Superconductivity and Novel Magnetism, 1996, 9, 337-342.	0.5	1
108	Experimental and theoretical electronic structure of EuRh_2As_2	1.1	1

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109	Cycloidal paths in physics as superpositions of translational and rotational motions. American Journal of Physics, 2019, 87, 802-814.	0.3	1
110	Reply to "Comment on "Magnetic structure and magnetization of z-axis helical Heisenberg antiferromagnets with XY anisotropy in high magnetic fields transverse to the helix axis at zero temperature". Physical Review B, 2020, 101, .	1.1	1
111	Instability and evolution of the magnetic ground state in metallic perovskites $GdRh_3C_{1-x}B_x$. Physical Review Materials, 2020, 4, .	0.9	1
112	Slow spin dynamics in the hyperhoneycomb lattice $\langle T_j \rangle = \frac{1}{N} \sum_{\mathbf{r}} \langle S_{\mathbf{r}} \cdot S_{\mathbf{r}+\mathbf{a}_j} \rangle$ Physical Review B, 2022, 105, .	1.1	1
113	A new portal for the physics of high-purity metals. Physical Review Materials, 2022, 6, .		
114	Magnetic Structures in RNi_2B_2C ($R = Ho, Er$) Superconductors. Materials Research Society Symposia Proceedings, 1994, 376, 559.	0.1	0
115	Spin Correlations and Magnetic Field Effects in the Weakly Anisotropic Square-Lattice Antiferromagnetic $Sr_2CuO_2Cl_2$. Physical Review Letters, 1995, 75, 4335-4335.	2.9	0
116	Suppression of antiferromagnetic order and strong ferromagnetic spin fluctuations in $Ca(Co_{1-x}Ni_x)_2As_2$ single crystals. Physical Review B, 2021, 104, .	1.1	0
117	Carrier tuning of Stoner ferromagnetism in $ThCr_2As_2$ -structure cobalt arsenides. Physical Review B, 2021, 104, .		
118	Incommensurate and commensurate antiferromagnetic states in $CaMn_2As_2$ and $SrMn_2As_2$ Physical Review B, 2021, 104, .	1.1	0