

Wangchun Chen

List of Publications by Year in descending order

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57
papers

1,526
citations

279798

23
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315739

38
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58
all docs

58
docs citations

58
times ranked

1768
citing authors

#	ARTICLE	IF	CITATIONS
1	Core-Shell Magnetic Morphology of Structurally Uniform Magnetite Nanoparticles. Physical Review Letters, 2010, 104, 207203.	7.8	130
2	Local Weak Ferromagnetism in Single-Crystalline Ferroelectric BiFeO_3 . Physical Review Letters, 2011, 107, 207206.	7.8	124
3	Spin-exchange optical pumping of ^3He with Rb-K mixtures and pure K. Physical Review A, 2007, 75, .	2.5	91
4	Limits to the Polarization for Spin-Exchange Optical Pumping of ^3He . Physical Review Letters, 2006, 96, 083003.	7.8	67
5	Coupled Magnetic and Ferroelectric Domains in Multiferroic $\text{Ni}_3\text{V}_2\text{O}_8$. Physical Review Letters, 2009, 103, 087201.	7.8	67
6	Production of highly polarized ^3He using spectrally narrowed diode laser array bars. Journal of Applied Physics, 2003, 94, 6908-6914.	2.5	57
7	Friedel-Like Oscillations from Interstitial Iron in Superconducting $\text{Fe}_y\text{Co}_{1-y}$. Physical Review Letters, 2012, 108, 107002.	7.8	51
8	Applications of ^3He neutron spin filters at the NCNR. Physica B: Condensed Matter, 2009, 404, 2663-2666.	2.7	48
9	Spin Stripe Order in a Square Planar Trilayer Nickelate. Physical Review Letters, 2019, 122, 247201.	7.8	48
10	Polarized spin filters in neutron scattering. Physica B: Condensed Matter, 2005, 356, 96-102.	2.7	45
11	Neutron Diffraction Investigations of Magnetism in BiFeO_3 Epitaxial Films. Advanced Functional Materials, 2011, 21, 1567-1574.	14.9	42
12	Higgs amplitude mode in a two-dimensional quantum antiferromagnet near the quantum critical point. Nature Physics, 2017, 13, 638-642.	16.7	39
13	On the limits of spin-exchange optical pumping of ^3He . Journal of Applied Physics, 2014, 116, .	2.5	36
14	In situ SEOP polarised ^3He neutron spin filter for incident beam polarisation and polarisation analysis on neutron scattering instruments. Physica B: Condensed Matter, 2009, 404, 2659-2662.	2.7	35
15	Resolving 3D magnetism in nanoparticles using polarization analyzed SANS. Physica B: Condensed Matter, 2009, 404, 2561-2564.	2.7	33
16	Polarized ^3He cell development and application at NIST. Journal of Physics: Conference Series, 2011, 294, 012003.	0.4	33
17	^3He spin filters for a thermal neutron triple axis spectrometer. Physica B: Condensed Matter, 2007, 397, 168-171.	2.7	30
18	Polarization-analyzed small-angle neutron scattering. I. Polarized data reduction using $\langle i \rangle \text{Pol-Corr} \langle i \rangle$. Journal of Applied Crystallography, 2012, 45, 546-553.	4.5	29

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19	Generation and detection of spin-orbit coupled neutron beams. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20328-20332.	7.1	29
20	Antichiral spin order, its soft modes, and their hybridization with phonons in the topological semimetal Mn_3P_2 . Physical Review B, 2020, 102, .	3.2	29
21	The very small angle neutron scattering instrument at the National Institute of Standards and Technology. Journal of Applied Crystallography, 2022, 55, 271-283.	4.5	26
22	Low-field orientation dependence of ^3He relaxation in spin-exchange cells. Physical Review A, 2004, 69, .	2.5	25
23	Polarized He-3 spin filters for slow neutron physics. Journal of Research of the National Institute of Standards and Technology, 2005, 110, 299.	1.2	24
24	End-compensated magnetostatic cavity for polarized ^3He neutron spin filters. Review of Scientific Instruments, 2009, 80, 063905.	1.3	23
25	Precision Measurement of the ^3He Neutron Spin Filter Incoherent Scattering Length Using Neutron Interferometry. Physical Review Letters, 2000, 103, 200401.	7.8	23
26	^3He spin filter based polarized neutron capability at the NIST Center for Neutron Research. Journal of Physics: Conference Series, 2014, 528, 012014.	0.4	23
27	Spin echo small angle neutron scattering using a continuously pumped ^3He neutron polarisation analyser. Review of Scientific Instruments, 2015, 86, 023902.	1.3	23
28	Polarized neutron reflectometry of a patterned magnetic film with a ^3He analyzer and a position-sensitive detector. Review of Scientific Instruments, 2004, 75, 3256-3263.	1.3	22
29	Nanometer-size magnetic domains and coherent magnetization reversal in a giant exchange-bias system. Physical Review B, 2011, 84, .	3.2	22
30	Polarized He3 gas compression system using metastability-exchange optical pumping. Review of Scientific Instruments, 2005, 76, 053503.	1.3	20
31	Neutron Beam Effects on Spin-Exchange-Polarized ^3He . Physical Review Letters, 2008, 101, 083002.	7.8	18
32	Continuously operating compact He-based neutron spin filter. Physica B: Condensed Matter, 2005, 356, 86-90.	2.7	17
33	Variation in structure and properties of a non-dispersive TTCP/DCPA-derived CPC immersed in Hanks? solution. Journal of Oral Rehabilitation, 2007, 34, 541-551.	3.0	17
34	In-situ SEOP polarizer and initial tests on a high flux neutron beam. Physica B: Condensed Matter, 2009, 404, 2655-2658.	2.7	14
35	A wide angle neutron spin filter system using polarized ^3He . Physica B: Condensed Matter, 2011, 406, 2419-2423.	2.7	13
36	Wide-angle polarization analysis on the multi-axis crystal spectrometer for the study of collective and single particle dynamics of methanol at its prepeak. Physica B: Condensed Matter, 2019, 564, 166-171.	2.7	13

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37	Polarized He analyzers for neutron reflectometry. <i>Physica B: Condensed Matter</i> , 2003, 335, 196-200.	2.7	12
38	Effects of high-flux neutron beams on ^3He cells polarized <i>in situ</i> with spin-exchange optical pumping. <i>Physical Review A</i> , 2009, 80, .	2.5	11
39	Internal magnetic structure of magnetite nanoparticles at low temperature. <i>Journal of Applied Physics</i> , 2010, 107, 09B525.	2.5	10
40	A ^3He beam stop for minimizing gamma-ray and fast-neutron background. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2017, 311, 1243-1249.	1.5	10
41	Demonstration of Focusing Wolter Mirrors for Neutron Phase and Magnetic Imaging. <i>Journal of Imaging</i> , 2018, 4, 50.	3.0	10
42	Spin-liquid-like state in pure and Mn-doped TbInO_3 with a nearly triangular lattice. <i>Physical Review B</i> , 2019, 100, .	3.2	10
43	Suppression of nuclear polarization near the surface of optically pumped GaAs. <i>Physical Review B</i> , 2007, 76, .	3.2	8
44	Neutron interferometric measurement of the scattering length difference between the triplet and singlet states of ^3He . <i>Physical Review C</i> , 2014, 90, .	2.9	8
45	Electrical heating for SEOP-based polarized ^3He system. <i>Journal of Physics: Conference Series</i> , 2010, 251, 012087.	0.4	7
46	Electric Field Imaging Using Polarized Neutrons. <i>Physical Review Letters</i> , 2020, 125, 110801.	7.8	6
47	Small-angle neutron scattering measurements of deuteride (hydride) formation and decomposition in single-crystal Pd. <i>Physical Review B</i> , 2001, 65, .	3.2	5
48	Small-angle x-ray scattering measurements of hydrogen evolution from an epitaxial Nb film. <i>Physical Review B</i> , 2002, 66, .	3.2	5
49	Title is missing!. <i>Journal of Materials Science Letters</i> , 2002, 21, 1583-1585.	0.5	5
50	In-situ Polarized ^3He -Based Neutron Polarization Analyzer for SNS Magnetism Reflectometer. <i>Journal of Physics: Conference Series</i> , 2010, 251, 012086.	0.4	5
51	Neutron Path Length Correction of a ^3He Spin Filter. <i>Physics Procedia</i> , 2013, 42, 163-170.	1.2	5
52	Quantum critical behavior in $\text{Ce}(\text{Fe}_{0.76}\text{Ru}_{0.24})_2\text{Ge}_2$. <i>Physical Review B</i> , 2019, 99, .	3.2	5
53	Identification of the low-energy excitations in a quantum critical system. <i>AIP Advances</i> , 2017, 7, .	1.3	3
54	Small-angle neutron polarimetry apparatus (SANPA): Development at the NIST Center for Neutron Research. <i>Review of Scientific Instruments</i> , 2019, 90, 063303.	1.3	3

#	ARTICLE	IF	CITATIONS
55	Optimizing magnetically shielded solenoids. Review of Scientific Instruments, 2020, 91, 105102.	1.3	2
56	A large beam high efficiency radio frequency neutron spin flipper. Review of Scientific Instruments, 2021, 92, 063906.	1.3	2
57	Sensitive neutron transverse polarization analysis using a ^3He spin filter. Review of Scientific Instruments, 2020, 91, 073303.	1.3	1