

Jennifer L Niedziela

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

1,654
citations

331670

21
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302126

39
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62
all docs

62
docs citations

62
times ranked

3520
citing authors

#	ARTICLE	IF	CITATIONS
1	The new cold neutron chopper spectrometer at the Spallation Neutron Source: Design and performance. Review of Scientific Instruments, 2011, 82, 085108.	1.3	220
2	Precision Measurement of the Weak Mixing Angle in Moller Scattering. Physical Review Letters, 2005, 95, 081601.	7.8	212
3	A comparison of four direct geometry time-of-flight spectrometers at the Spallation Neutron Source. Review of Scientific Instruments, 2014, 85, 045113.	1.3	107
4	Selective breakdown of phonon quasiparticles across superionic transition in CuCrSe ₂ . Nature Physics, 2019, 15, 73-78.	16.7	88
5	Anharmonic lattice dynamics and superionic transition in AgCrSe ₂ . Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3930-3937.	7.1	73
6	Nuclear quantum effect with pure anharmonicity and the anomalous thermal expansion of silicon. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1992-1997.	7.1	68
7	Structural phase transition and phonon instability in $Sr_{1-x}Co_xFe_2As_2$. Physical Review B, 2016, 93, .	3.2	48
8	Stripe Antiferromagnetic Spin Fluctuations in $SrCo_2As_2$. Physical Review Letters, 2013, 111, 157001.	7.8	47
9	Phonon anharmonicity in silicon from 100 to 1500 K. Physical Review B, 2015, 91, .	3.2	47
10	Extended anharmonic collapse of phonon dispersions in SnS and SnSe. Nature Communications, 2020, 11, 4430.	12.8	46
11	Phonon softening near the structural transition in BaFe ₂ As ₂ observed by inelastic x-ray scattering. Physical Review B, 2011, 84, .	3.2	39
12	Magnetic structure and spin excitations in $BaMn_2Fe_2As_2$. Physical Review B, 2014, 89, .	3.2	39
13	Heavy-impurity resonance, hybridization, and phonon spectral functions in $BaMn_2Fe_2As_2$.		

#	ARTICLE	IF	CITATIONS
19	Magnetically driven phonon instability enables the metal-insulator transition in h-FeS. Nature Physics, 2020, 16, 669-675.	16.7	26
20	Effective One-Dimensional Coupling in the Highly Frustrated Square-Lattice Itinerant Magnet $\langle \text{CaCo}_2 \rangle^2 \langle \text{m}_y \rangle^2$ Physical Review Letters, 2017, 119, 147201.	7.8	25
21	Coexistence of Ferromagnetic and Stripe Antiferromagnetic Spin Fluctuations in SrCo_2 $\langle \text{SrCo}_2 \rangle^2 \langle \text{m}_y \rangle^2$ Physical Review Letters, 2019, 122, 117204.	7.8	23
22	Local structural variation as source of magnetic moment reduction in BaFeAs_2 $\langle \text{BaFeAs}_2 \rangle^2 \langle \text{m}_y \rangle^2$ Physical Review Letters, 2015, 115, 117204.	3.2	20
23	Close correlation between magnetic properties and the spin phonon mode in BaFeAs_2 $\langle \text{BaFeAs}_2 \rangle^2 \langle \text{m}_y \rangle^2$ Physical Review Letters, 2015, 115, 117204.	3.2	19
24	Lattice dynamics and thermal transport in multiferroic CuCrO_2 . Physical Review B, 2017, 95, .	3.2	19
25	Elucidation of the Structure and Vibrational Spectroscopy of Synthetic Metaschoepite and Its Dehydration Product. Inorganic Chemistry, 2019, 58, 7310-7323.	4.0	19
26	Low-energy magnetic excitations in Co/CoO core/shell nanoparticles. Physical Review B, 2011, 83, .	3.2	18
27	Energy dependence of the spin excitation anisotropy in uniaxial-strained $\text{BaFe}_{1.9}\text{Ni}_{0.1}\text{As}_2$. Physical Review B, 2015, 92, .	3.2	18
28	Temperature-dependent phonon lifetimes and thermal conductivity of silicon by inelastic neutron scattering and <i>ab initio</i> calculations. Physical Review B, 2020, 102, .	3.2	18
29	Formation of a uranyl hydroxide hydrate via hydration of $[(\text{UO}_2)_2\text{F}_2(\text{H}_2\text{O})_7 \cdot 4\text{H}_2\text{O}]$. Dalton Transactions, 2019, 48, 13685-13698.	3.3	15
30	Computationally Guided Investigation of the Optical Spectra of Pure U^{2+} - UO_3 . Inorganic Chemistry, 2020, 59, 11481-11492.	4.0	14
31	Spin excitations in BaFe_2As_2 observed by inelastic neutron scattering. Physical Review B, 2009, 80, .	3.2	13
32	Phonon anharmonicity of monoclinic zirconia and yttrium-stabilized zirconia. Physical Review B, 2015, 91, .	3.2	13
33	Design and operating characteristic of a vacuum furnace for time-of-flight inelastic neutron scattering measurements. Review of Scientific Instruments, 2017, 88, 105116.	1.3	13
34	Characterizing the degradation of $[(\text{UO}_2\text{F}_2)(\text{H}_2\text{O})]_7 \cdot 4\text{H}_2\text{O}$ under humid conditions. Journal of Nuclear Materials, 2020, 529, 151889.	2.7	11
35	Structural, Spectroscopic, and Kinetic Insight into the Heating Rate Dependence of Studtite and Metastudtite Dehydration. Journal of Physical Chemistry C, 2020, 124, 26699-26713.	3.1	11
36	Influence of temperature on accessible pyrolysis pathways of homopolymerized bisphenol A/F epoxies and copolymers. Journal of Analytical and Applied Pyrolysis, 2021, 153, 104978.	5.5	11

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37	Phonon spectrum of SrFe ₂ As ₂ determined using multizone phonon refinement. Physical Review B, 2014, 89, .	3.2	10
38	Observation of a Novel Lattice Instability in Ultrafast Photoexcited SnSe. Physical Review X, 2022, 12, .	8.9	10
39	Dynamic Distortions in the YTiO ₃ Ferromagnet. Journal of the Physical Society of Japan, 2014, 83, 084601.	1.6	9
40	Robust antiferromagnetic spin waves across the metal-insulator transition in hole-doped BaMnO_2 . Physical Review B, 2017, 95, .	3.2	9
41	Lattice dynamics of the hybrid improper ferroelectrics CaO_7 . Physical Review B, 2019, 100, .	3.2	9
42	Clathrate BaNi ₂ P ₄ : An Interplay of Heat and Charge Transport Due to Strong Host-Guest Interactions. Chemistry of Materials, 2020, 32, 7932-7940.	6.7	9
43	Measurement of the generalized spin polarizabilities of the neutron in the low-Q ₂ region. Nature Physics, 2021, 17, 687-692.	16.7	9
44	Lattice and magnetic dynamics in perovskite $\text{YBaCu}_3\text{O}_{x-1}$. Physical Review B, 2016, 94, .	3.2	8
45	Shining a light on amorphous U ₂ O ₇ : A computational approach to understanding amorphous uranium materials. Optical Materials, 2019, 89, 295-298.	3.6	8
46	Structural features of solid-solid phase transitions and lattice dynamics in U_3O_8 . Physical Review Materials, 2020, 4, .	2.4	8
47	Controlling phonon lifetimes via sublattice disordering in AgBi_2S_6 . Physical Review Materials, 2020, 4, .	2.4	8
48	Plaquette instability competing with bicollinear ground state in detwinned FeTe. Physical Review B, 2019, 100, .	3.2	7
49	The Impact of Coordination Environment on the Thermodynamic Stability of Uranium Oxides. Journal of Physical Chemistry C, 2019, 123, 15985-15995.	3.1	7
50	Magnetoelastic coupling, negative thermal expansion, and two-dimensional magnetic excitations in FeAs. Physical Review B, 2021, 103, .	3.2	6
51	Vibrational properties of uranium fluorides. Physica B: Condensed Matter, 2019, 570, 194-205.	2.7	5
52	Analysis of Water Coupling in Inelastic Neutron Spectra of Uranyl Fluoride. Scientific Reports, 2019, 9, 10476.	3.3	5
53	Optical vibrational spectra and proposed crystal structure of $\mu\text{-UO}_3$. Journal of Nuclear Materials, 2022, 559, 153386.	2.7	4
54	Complex optimization for big computational and experimental neutron datasets. Nanotechnology, 2016, 27, 484002.	2.6	3

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55	Antiferromagnetic ordering and possible lattice response to dynamic uranium valence in U ₃ O ₈ . Physical Review B, 2021, 103, .	3.2	3
56	Computational investigations of Dienes defect- and vacancy-induced changes in the electronic and vibrational properties of carbon fiber structural units. Physical Chemistry Chemical Physics, 2021, 23, 27385-27396.	2.8	3
57	Inelastic neutron spectra of polyacrylonitrile-based carbon fibers. Physical Review Materials, 2022, 6, .	2.4	3
58	Magnetoelastic coupling and spin contributions to entropy and thermal transport in biferroic yttrium orthochromite [*] . Journal of Physics Condensed Matter, 2021, 33, 125702.	1.8	2
59	Inelastic Neutron Spectra of Uranium Tetrafluoride Hydrate, UF ₄ (H ₂ O) _{2.5} . Journal of Physical Chemistry C, 2021, 125, 25007-25021.	3.1	2
60	Structure and dynamics of cadmium telluride studied by x-ray and inelastic neutron scattering. Applied Physics Letters, 2014, 105, 102101.	3.3	1
61	Heisenberg model analysis on inelastic powder neutron scattering data using parent and K doped BaMn ₂ As ₂ samples. Physica B: Condensed Matter, 2018, 551, 51-59.	2.7	1