Dirk Wulferding

List of Publications by Year
in descending order

64	1,041	471509 17	454955 30
papers	citations	h-index	g-index

68	68	68	1735
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Interplay of thermal and quantum spin fluctuations in the kagome lattice compound herbertsmithite. Physical Review B, 2010, 82, .	3.2	93
2	Magnon bound states versus anyonic Majorana excitations in the Kitaev honeycomb magnet Î±-RuCl3. Nature Communications, 2020, 11, 1603.	12.8	72
3	Preparation of silver nanoparticles coated ZnO/Fe3O4 composites using chemical reduction method for sensitive detection of uric acid via surface-enhanced Raman spectroscopy. Analytica Chimica Acta, 2019, 1073, 62-71.	5.4	70
4	Optical phonons, spin correlations, and spin-phonon coupling in the frustrated pyrochlore magnets<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CdCr</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>ZnCr</mml:mtext></mml:mrow><mml:mn>2</mml:. Physical Review B, 2009, 80, .	3.2	67
5	Lattice and electronic anomalies of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CaFe</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:m by Raman spectroscopy. Physical Review B, 2008, 78, .	3.2	57
6	Interplay between lattice and spin states degree of freedom in the FeSe superconductor: Dynamic spin state instabilities. Physical Review B, 2013, 87, .	3.2	54
7	Crossover from coherent to incoherent scattering in spin-orbit dominated Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>IrO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 85, .	3.2	45
8	Nano MOF Entrapping Hydrophobic Photosensitizer for Dual-Stimuli-Responsive Unprecedented Therapeutic Action against Drug-Resistant Bacteria. ACS Applied Bio Materials, 2019, 2, 1772-1780.	4.6	45
9	Synthesis, Crystal Structure, and Magnetic Properties of the Copper Selenite Chloride Cu₅(SeO₃)₄Cl₂. Inorganic Chemistry, 2010, 49, 9683-9688.	4.0	32
10	Flower-Like BiOI Microspheres Decorated with Plasmonic Gold Nanoparticles for Dual Detoxification of Organic and Inorganic Water Pollutants. ACS Applied Nano Materials, 2020, 3, 2733-2744.	5.0	29
11	Anomalous low-energy phonons in nearly tetragonal BiFeO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>thin films. Physical Review B, 2011, 84, .	3.2	26
12	Direct observation of the M2 phase with its Mott transition in a VO2 film. Applied Physics Letters, 2016, 109, .	3.3	26
13	Separation of the Oxide and Halide Part in the Oxohalide Fe₃Te₃O₁₀Cl Due to High Lewis Acidity of the Cations. Inorganic Chemistry, 2009, 48, 6599-6603.	4.0	25
14	Raman study of the Verwey transition in magnetite thin films. New Journal of Physics, 2013, 15, 103032.	2.9	23
15	Soft tilt and rotational modes in the hybrid improper ferroelectric <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ca</mml:mi><mml:mn>3</mml:mn></mml:mr mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 97, .	3.2	23
16	Microwave absorption in the frustrated ferrimagnet Cu2OSeO3. Low Temperature Physics, 2010, 36, 176-179.	0.6	19
17	Emergent nematicity and intrinsic versus extrinsic electronic scattering processes in the kagome metal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CsV</mml:mi><mml:mn>3</mml:mn></mml:mr Physical Review Research, 2022, 4, .	3.6	18
18	Extension of the zinc paratacamite phase diagram: Probing the effect of spin vacancies in anS=12kagome antiferromagnet. Physical Review B, 2012, 85, .	3.2	17

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19	Evidence for Dimer Crystal Melting in the Frustrated Spin-Ladder SystemBiCu2PO6. Physical Review Letters, 2013, 110, 117204.	7.8	17
20	Enhanced quasiparticle dynamics of quantum well states: The giant Rashba system BiTeI and topological insulators. Physical Review B, 2014, 89, .	3.2	16
21	Flat-band spin dynamics and phonon anomalies of the saw-tooth spin-chain system <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Fe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mo>(</mml:mo><mml:msub><mml:mi>SeO</mml:mi><mml:mn>3</mml:mn></mml:msub> Physical Review B, 2019, 99, .	3.2	16
22	Raman spectroscopic diagnostic of quantum spin liquids. Journal of Physics Condensed Matter, 2020, 32, 043001.	1.8	16
23	Coupled spin-lattice fluctuations in a compound with orbital degrees of freedom: The Cr-based dimer system Sr3Cr2O8. Physical Review B, 2011, 84, .	3.2	13
24	Interplay of electronic correlations and lattice instabilities inBaVS3. Physical Review B, 2009, 80, .	3.2	11
25	Kitaev Spin Liquid Candidate Os_xCl₃ Comprised of Honeycomb Nano-Domains. Journal of the Physical Society of Japan, 2020, 89, 114709.	1.6	11
26	Softened magnetic excitations in thes= 3/2 distorted triangular antiferromagnet Î±-CaCr₂O₄. Journal of Physics Condensed Matter, 2012, 24, 435604.	1.8	10
27	Tailoring defect structure and optical absorption of porous anodic aluminum oxide membranes. Materials Chemistry and Physics, 2012, 135, 206-211.	4.0	10
28	Competing lattice fluctuations and magnetic excitations in CuO. Physical Review B, 2013, 87, .	3.2	10
29	Domain engineering of the metastable domains in the 4f-uniaxial-ferromagnet CeRu2Ga2B. Scientific Reports, 2017, 7, 46296.	3.3	10
30	New Perspectives for Cuprate Research: (Ca x La1âˆ'x)(Ba1.75âˆ'x La0.25+x)Cu3O y Single Crystals. Journal of Superconductivity and Novel Magnetism, 2012, 25, 2331-2335.	1.8	9
31	Relation between cuprate superconductivity and magnetism: A Raman study of(CaLa)1(BaLa)2Cu3Oy. Physical Review B, 2014, 90, .	3.2	9
32	Spatially resolved penetration depth measurements and vortex manipulation in the ferromagnetic superconductor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">ErNi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">B</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">C</mml:mi></mml:math>. Physical Review B, 2015, 92, .	3.2	9
33	Magnetic domain tuning and the emergence of bubble domains in the bilayer manganite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mtext>La</mml:mtext><mml:mrow> Physical Review B, 2015, 92, .	3.2	9
34	Screw-Type Motion and Its Impact on Cooperativity in BaNa₂Fe[VO₄]₂. Inorganic Chemistry, 2018, 57, 6300-6308.	4.0	9
35	Effect of topology on quasiparticle interactions in the Weyl semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>WP</mml:mi><mml:mn>2</mml:mn></mml:msub> Physical Review B, 2020, 102, .	3.2	9
36	Dynamical lattice instability versus spin liquid state in a frustrated spin chain system. Physical Review B, 2012, 85, .	3.2	8

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37	Lattice and orbital fluctuations in TiPO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 88, .	3.2	8
38	Construction of a 3He magnetic force microscope with a vector magnet. Review of Scientific Instruments, 2016, 87, 023704.	1.3	8
39	Development of a magnetic nanohybrid for multifunctional application: From immobile photocatalysis to efficient photoelectrochemical water splitting: A combined experimental and computational study. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 397, 112575.	3.9	8
40	Charge gap and charge-phonon coupling in LuFe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 87, .	3.2	7
41	Anomalous low-temperature behavior of the Co dimers in the oxo-halide CoSb2O3Br2. Journal of Solid State Chemistry, 2008, 181, 2776-2782.	2.9	6
42	A Molecular Magnet Confined in the Nanocage of a Globular Protein. ChemPhysChem, 2010, 11, 389-393.	2.1	6
43	The spin dynamics in distorted kagome lattices: a comparative Raman study. Journal of Physics Condensed Matter, 2012, 24, 185602.	1.8	6
44	Local characterization of a heavy-fermion superconductor via sub-Kelvin magnetic force microscopy. Applied Physics Letters, 2020, 117, .	3.3	6
45	Phononic and magnetic excitations in the quasi-one-dimensional Heisenberg antiferromagnet KCuF3. Low Temperature Physics, 2012, 38, 419-427.	0.6	5
46	Low-dimensional magnetism of spin-Â½ chain systems of Î±- and Î²-TeVO4: A comparative study. Low Temperature Physics, 2012, 38, 559-569.	0.6	5
47	Ultrafast excited state deactivation of doped porous anodic alumina membranes. Nanotechnology, 2012, 23, 305705.	2.6	4
48	Raman scattering of plane-wave and twisted light off chiral molecular liquids. Low Temperature Physics, 2021, 47, 959-965.	0.6	4
49	Dimer Crystallization Induced by Elemental Substitution in the Honeycomb Lattice of Ru_{1âˆ’}_xOs_xCl₃. Journal of the Physical Society of Japan, 2022, 91, .	1.6	4
50	High magnetic anisotropy and magnon excitations in single crystals of the double spin chain compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Pb</mml:mi><mml:msub><mml:mi>Mn</mml:mi><mml:mi><mml:r mathvariant="normal">O</mml:mi><mml:mn>18</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2021, 103, .	3.2	3
51	Magnetic and structural correlations in the warwickite Mn2OBO3. Low Temperature Physics, 2019, 45, 1046-1052.	0.6	2
52	Tailoring the surface plasmon resonance energy of Au nanowire arrays by defect management and thermal treatment. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 121, 114092.	2.7	2
53	Strain-induced doping and zero line mode at the fold of twisted Bernal-stacked bilayer graphene. 2D Materials, 2021, 8, 045009.	4.4	2
54	Non-Abelian statistics in light-scattering processes across interacting Haldane chains. Physical Review B, 2021, 104, .	3.2	2

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55	Cu9O2(SeO3)4Cl6 revisited: Crystal structure, Raman scattering and first-principles calculations. Journal of Alloys and Compounds, 2022, 894, 162291.	5.5	2
56	Thermally populated versus field-induced triplon bound states in the Shastry-Sutherland lattice SrCu2(BO3)2. Npj Quantum Materials, 2021, 6, .	5.2	2
57	Twisted double ABC-stacked trilayer graphene with weak interlayer coupling. Physical Review B, 2022, 105, .	3.2	2
58	Inside Cover: A Molecular Magnet Confined in the Nanocage of a Globular Protein (ChemPhysChem) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.1	1
59	Systematic Raman study of optical phonons in RBa2Cu3O6+Î´ (R=Y , Dy, Gd, Sm, Nd): Antiferromagnetic coupling strength versus lattice parameters. Physical Review B, 2019, 99, .	3.2	1
60	Experimental signatures of nodeless multiband superconductivity in a $$hbox {2H-Pd}_{0.08} hbox {TaSe}_2$$ single crystal. Scientific Reports, 2021, 11, 13383.	3.3	1
61	Phase separation in iron chalcogenide superconductor Rb0.8+xFe1.6+ySe2as seen by Raman light scattering and band structure calculations. Low Temperature Physics, 2016, 42, 491-504.	0.6	0
62	Tuning the orbital-lattice fluctuations in the mixed spin-dimer system <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ba</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mi mathvariant="normal">x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mi>Sr</mml:mi><mml:mi mathvariant="normal">x</mml:mi></mml:msub><mml:msub><mml:mi>Cr</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 98, .	3.2	0
63	Comparative Optic Studies of Cobalt-Based Layered Double Hydroxides with Nitrate and Carbonate Anions and CoII/AlIII ratio n = 2, 3, 4. , 2021, , .		0
64	Magnetic and lattice excitations in the quasi-2D quantum spin compound (CuCl)LaNb2O7. Low Temperature Physics, 2021, 47, 928-936.	0.6	0