

# Zhen-Xing Wang

## List of Publications by Year in descending order

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106  
papers

3,941  
citations

147801

31  
h-index

128289

60  
g-index

110  
all docs

110  
docs citations

110  
times ranked

5158  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetization switching through giant spin-orbit torque in a magnetically doped topological insulator heterostructure. <i>Nature Materials</i> , 2014, 13, 699-704.	27.5	773
2	Two-Coordinate Co(II) Imido Complexes as Outstanding Single-Molecule Magnets. <i>Journal of the American Chemical Society</i> , 2017, 139, 373-380.	13.7	343
3	Unpaired 3d Electrons on Atomically Dispersed Cobalt Centres in Coordination Polymers Regulate both Oxygen Reduction Reaction (ORR) Activity and Selectivity for Use in Zinc-Air Batteries. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 286-294.	13.8	200
4	A Planar $\{Mn_{19}(OH)_{12}\}^{26+}$ Unit Incorporated in a Tungstosilicate Polyanion. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 5961-5964.	13.8	180
5	Tailoring the Magnetic and Optical Characteristics of Nanocrystalline $BiFeO_3$ by $Ce$ Doping. <i>Journal of the American Ceramic Society</i> , 2012, 95, 1985-1992.	3.8	108
6	Reversible "off" switching of both spin crossover and single-molecule magnet behaviours via a crystal-to-crystal transformation. <i>Chemical Science</i> , 2018, 9, 7986-7991.	7.4	88
7	New Insights into Mn-Mn Coupling Interaction-Directed Photoluminescence Quenching Mechanism in $Mn^{2+}$ -Doped Semiconductors. <i>Journal of the American Chemical Society</i> , 2020, 142, 6649-6660.	13.7	85
8	Strain-induced modulation of perpendicular magnetic anisotropy in Ta/CoFeB/MgO structures investigated by ferromagnetic resonance. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	79
9	Structurally Diverse Copper(II) Complexes of Polyaza Ligands Containing 1,2,3-Triazoles: Site Selectivity and Magnetic Properties. <i>Inorganic Chemistry</i> , 2012, 51, 3465-3477.	4.0	78
10	Uniaxial magnetic anisotropy of square-planar chromium(II) complexes revealed by magnetic and HF-EPR studies. <i>Chemical Communications</i> , 2015, 51, 17688-17691.	4.1	77
11	Slow magnetic relaxation in mononuclear seven-coordinate cobalt(II) complexes with easy plane anisotropy. <i>Dalton Transactions</i> , 2015, 44, 11482-11490.	3.3	76
12	Dimethylammonium copper formate $[(CH_3)_2NH_2]Cu(HCOO)_3$ : A metal-organic framework with quasi-one-dimensional antiferromagnetism and magnetostriction. <i>Physical Review B</i> , 2013, 87, .	3.2	62
13	Opening Magnetic Hysteresis by Axial Ferromagnetic Coupling: From Mono-Decker to Double-Decker Metallocrown. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5299-5306.	13.8	62
14	Synthesis and Characterization of the Dicopper(II)-Containing $22-Pd_{22}P_{12}Cu_{60}(OH)_x$ . <i>Angewandte Chemie - International Edition</i> , 2011, 50, 2639-2642.	13.8	62
15	$[M^{II}_8Pd_{12}L_8]^{n+}$ ( $M = Cu, Ni$ ) $T_j$ ETQq1 1 0.784314 rgBT /Overlook	4.0	58
16	Quantum Phase Transition from Superparamagnetic to Quantum Superparamagnetic State in Ultrasmall $Cd_{1-x}Cr_xSe$ Quantum Dots?. <i>Journal of the American Chemical Society</i> , 2012, 134, 2172-2179.	13.7	50
17	Modulation of the magnetic anisotropy of octahedral cobalt(II) single-ion magnets by fine-tuning the axial coordination microenvironment. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 848-856.	6.0	50
18	Probing the Local Site Environments in Mn:CdSe Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2011, 115, 23305-23314.	3.1	48

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19	Insights into Magnetic Interactions in a Monodisperse Gd <sub>12</sub> Fe <sub>14</sub> Metal Cluster. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 11475-11479.	13.8	48
20	Important Role of Intermolecular Interaction in Cobalt(II) Single-Ion Magnet from Single Slow Relaxation to Double Slow Relaxation. <i>Inorganic Chemistry</i> , 2018, 57, 10761-10767.	4.0	47
21	3d Metal Ions in Highly Unusual Eight-Coordination: The Phosphate-Capped Dodecapalladate(II) Nanocube. <i>Chemistry - A European Journal</i> , 2012, 18, 6167-6171.	3.3	43
22	Large Easy-Plane Magnetic Anisotropy in a Three-Coordinate Cobalt(II) Complex [Li(THF) <sub>4</sub> ][Co(NPh) <sub>2</sub> ] <sub>3</sub> . <i>Chemistry - A European Journal</i> , 2016, 22, 14821-14825.	3.3	40
23	Slow Magnetic Relaxations in Cobalt(II) Tetranitrate Complexes. Studies of Magnetic Anisotropy by Inelastic Neutron Scattering and High-Frequency and High-Field EPR Spectroscopy. <i>Inorganic Chemistry</i> , 2016, 55, 12603-12617.	4.0	39
24	A mononuclear five-coordinate Co(II) single molecule magnet with a spin crossover between the $S = 1/2$ and $3/2$ states. <i>Dalton Transactions</i> , 2018, 47, 16596-16602.	3.3	39
25	Magnetic Metal-Organic Framework Exhibiting Quick and Selective Solvatochromic Behavior along with Reversible Crystal-to-Amorphous-to-Crystal Transformation. <i>Inorganic Chemistry</i> , 2018, 57, 7006-7014.	4.0	38
26	Coherent Manipulation of Electron Spins in the {Cu <sub>3</sub> } Spin Triangle Complex Impregnated in Nanoporous Silicon. <i>Physical Review Letters</i> , 2012, 108, 067206.	7.8	36
27	Probing the Axial Distortion Effect on the Magnetic Anisotropy of Octahedral Co(II) Complexes. <i>Inorganic Chemistry</i> , 2020, 59, 7622-7630.	4.0	34
28	Broadband emission of double perovskite Cs <sub>2</sub> Na <sub>04</sub> Ag <sub>06</sub> In <sub>0995</sub> Bi <sub>0005</sub> Cl <sub>6</sub> :Mn <sup>2+</sup> for single-phosphor white-light-emitting diodes. <i>Optics Letters</i> , 2019, 44, 4757.	3.3	34
29	Evidence of a ZnCr <sub>2</sub> Se <sub>4</sub> Spinel Inclusion at the Core of a Cr-Doped ZnSe Quantum Dot. <i>Journal of the American Chemical Society</i> , 2012, 134, 5577-5585.	13.7	33
30	Ligand Effect on the Single-Molecule Magnetism of Tetranuclear Co(II) Cubane. <i>Inorganic Chemistry</i> , 2017, 56, 15178-15186.	4.0	33
31	Series of Highly Stable Lanthanide-Organic Frameworks Constructed by a Bifunctional Linker: Synthesis, Crystal Structures, and Magnetic and Luminescence Properties. <i>Inorganic Chemistry</i> , 2018, 57, 2577-2583.	4.0	33
32	A two-dimensional cobalt(II) network with a remarkable positive axial anisotropy parameter exhibiting field-induced single-ion magnet behavior. <i>Journal of Materials Chemistry C</i> , 2016, 4, 7798-7808.	5.5	31
33	Slow magnetic relaxation influenced by change of symmetry from ideal $C_{3i}$ to $D_{3d}$ in cobalt(II)-based single-ion magnets. <i>Dalton Transactions</i> , 2018, 47, 2506-2510.	3.3	31
34	The Stabilization of Three-Coordinate Formal Mn(0) Complex with NHC and Alkene Ligation. <i>CheM</i> , 2018, 4, 2844-2860.	11.7	30
35	Field-induced slow magnetic relaxation of two 1-D compounds containing six-coordinated cobalt(II) ions: influence of the coordination geometry. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 2314-2320.	6.0	28
36	Tracking the Process of a Solvothermal Domino Reaction Leading to a Stable Triheteroarylmethyl Radical: A Combined Crystallographic and Mass Spectrometric Study. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3748-3753.	13.8	26

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37	Site Preference of Manganese on the Copper Site in Mn-Substituted CuInSe <sub>2</sub> Chalcopyrites Revealed by a Combined Neutron and X-ray Powder Diffraction Study. Chemistry of Materials, 2010, 22, 1647-1655.	6.7	25
38	Alloy Formation at the Tetrapod Core/Arm Interface. Nano Letters, 2012, 12, 3132-3137.	9.1	24
39	Novel half-magnetization plateau and nematiclike transition in the $\text{V}_2\text{O}_7$ skew chain. Physical Review B, 2018, 98, 080407.	2.2	24
40	Slow magnetic relaxation in a {EuCu <sub>5</sub> } metallacrown. Dalton Transactions, 2019, 48, 1686-1692.	3.3	24
41	Room-Temperature Magnetic Field Effect on Excitonic Photoluminescence in Perovskite Nanocrystals. Advanced Materials, 2021, 33, e2008225.	21.0	24
42	Magnetic anisotropy and slow magnetic relaxation processes of cobalt(II)-pseudohalide complexes. Dalton Transactions, 2019, 48, 10743-10752.	3.3	23
43	Photochemically Tuned Magnetic Properties in an Erbium(III)-Based Easy-Plane Single-Molecule Magnet. Inorganic Chemistry, 2019, 58, 14440-14448.	4.0	21
44	Unpaired 3d Electrons on Atomically Dispersed Cobalt Centres in Coordination Polymers Regulate both Oxygen Reduction Reaction (ORR) Activity and Selectivity for Use in Zinc-Air Batteries. Angewandte Chemie, 2020, 132, 292-300.	2.0	21
45	Structure, magnetic anisotropy and relaxation behavior of seven-coordinate Co(II) single-ion magnets perturbed by counter-anions. Dalton Transactions, 2020, 49, 7620-7627.	3.3	21
46	Chemical reaction within a compact non-porous crystal containing molecular clusters without the loss of crystallinity. Chemical Science, 2017, 8, 5356-5361.	7.4	20
47	Field-Induced Slow Magnetic Relaxation in an Octacoordinated Fe(II) Complex with Pseudo-D <sub>2d</sub> Symmetry: Magnetic, HF-EPR, and Theoretical Investigations. Inorganic Chemistry, 2017, 56, 8018-8025.	4.0	20
48	High-field electron paramagnetic resonance as a microscopic probe of anisotropic strain at Mn <sup>2+</sup> sites in CdSe:Mn <sup>2+</sup> quantum dots. Chemical Physics Letters, 2012, 524, 73-77.	2.6	19
49	Single-Crystal Study of a Low Spin Co(II) Molecular Qubit: Observation of Anisotropic Rabi Cycles. Inorganic Chemistry, 2019, 58, 2330-2335.	4.0	19
50	The pulsed high magnetic field facility and scientific research at Wuhan National High Magnetic Field Center. Matter and Radiation at Extremes, 2017, 2, 278-286.	3.9	18
51	Ferromagnetic coupling in copper benzimidazole chloride: structural, mass spectrometry, magnetism, and DFT studies. Dalton Transactions, 2017, 46, 16663-16670.	3.3	18
52	Series of Single-Ion and 1D Chain Complexes Based on Quinolinic Derivative: Synthesis, Crystal Structures, HF-EPR, and Magnetic Properties. Inorganic Chemistry, 2018, 57, 7757-7762.	4.0	17
53	Proof by EPR Spectroscopy that the Unpaired Electron in an Os <sub>2</sub> <sup>7+</sup> Species Is in a $\hat{\Gamma}^*$ Metal-based Molecular Orbital. Inorganic Chemistry, 2010, 49, 319-324.	4.0	16
54	Mn <sub>7</sub> Species with an S = 29/2 Ground State: High-Frequency EPR Studies of a Species at the Classical/Quantum Spin Interface. Journal of the American Chemical Society, 2011, 133, 17586-17589.	13.7	16

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55	Magnetic anisotropy and relaxation behavior of six-coordinate tris(pivalato)-Co(II) and -Ni(II) complexes. Dalton Transactions, 2018, 47, 10162-10171.	3.3	16
56	Anisotropic magnetization plateaus in $S=1/2$ skew-chain single-crystal $\text{Co}_2\text{V}_2\text{O}_7$ . Physical Review B, 2019, 99, .	3.2	16
57	A high-frequency EPR characterization of the $S=2$ linear tri-atomic chain in $\text{Cr}_3(\text{dpa})_4\text{Cl}_2\cdot\text{CH}_2\text{Cl}_2$ . Polyhedron, 2011, 30, 3058-3061.	2.2	15
58	Supramolecular Interactions Direct the Formation of Two Structural Polymorphs from One Building Unit in a One-Pot Synthesis. Chemistry - A European Journal, 2016, 22, 13900-13907.	3.3	15
59	Slow magnetic relaxation in two octahedral cobalt(II) complexes with positive axial anisotropy. Inorganica Chimica Acta, 2018, 479, 113-119.	2.4	15
60	Magnetization, ESR and large magnetocaloric effect in zigzag chain $\text{SrGd}_2\text{O}_4$ . Journal Physics D: Applied Physics, 2018, 51, 045001.	2.8	14
61	Rationalization of single-molecule magnet behavior in a three-coordinate $\text{Fe}(\text{III})$ complex with a high-spin state ( $S=5/2$ ). Inorganic Chemistry Frontiers, 2018, 5, 2486-2492.	6.0	13
62	Spin decoherence in an iron-based magnetic cluster. Polyhedron, 2011, 30, 3193-3196.	2.2	12
63	Magnetic Anisotropy: Structural Correlation of a Series of Chromium(II) Amidinate Complexes. Inorganic Chemistry, 2021, 60, 1344-1351.	4.0	12
64	Water-oriented magnetic anisotropy transition. Nature Communications, 2021, 12, 2738.	12.8	12
65	Switching of easy-axis to easy-plane anisotropy in cobalt(II) complexes. Inorganic Chemistry Frontiers, 2021, 8, 5158-5168.	6.0	12
66	Ferromagnetic coupling between 4f- and delocalized $\pi$ -radical spins in mixed (phthalocyaninato)(porphyrinato) rare earth double-decker SMMs. Inorganic Chemistry Frontiers, 2019, 6, 2142-2147.	6.0	11
67	Controlling Electron Spin Decoherence in Nd-based Complexes via Symmetry Selection. IScience, 2020, 23, 100926.	4.1	11
68	$\text{CoMOF}_5(\text{pyrazine})(\text{H}_2\text{O})_2$ ( $M = \text{Nb}, \text{Ta}$ ): Two-Layered Cobalt Oxyfluoride Antiferromagnets with Spin Flop Transitions. Inorganic Chemistry, 2021, 60, 13309-13319.	4.0	11
69	Direct Evidence from Electron Paramagnetic Resonance for Additional Configurations in Uncommon Paddlewheel $\text{Re}_2^{7+}$ Units Surrounded by an Unsymmetrical Bicyclic Guanidinate. Inorganic Chemistry, 2012, 51, 5257-5263.	4.0	10
70	Embedding 1D or 2D cobalt-carboxylate substrates in 3D coordination polymers exhibiting slow magnetic relaxation behaviors: crystal structures, high-field EPR, and magnetic studies. Dalton Transactions, 2017, 46, 4786-4795.	3.3	10
71	Syntheses, Structure, and $2/5$ Magnetization Plateau of a 2D Layered Fluorophosphate $\text{Na}_3\text{Cu}_5(\text{PO}_4)_4\text{F}_4\text{H}_2\text{O}$ . Inorganic Chemistry, 2018, 57, 3151-3157.	4.0	10
72	Magnetic anisotropy in square pyramidal cobalt(II) complexes supported by a tetraazo macrocyclic ligand. Dalton Transactions, 2020, 49, 14837-14846.	3.3	10

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73	Inhomogeneous magnetic cluster states in the magnetoresistance material $\text{Lu}_2\text{V}_2\text{O}_7$ . Physical Review B, 2010, 82, .	3.2	8
74	Spin dynamics of the $S=5/2$ 2D triangular antiferromagnet $\text{Ba}_3\text{NbFe}_3\text{Si}_2\text{O}_{14}$ . Journal of Physics Condensed Matter, 2012, 24, 246001.	1.8	8
75	Magnetization, ESR, and giant magnetocaloric effects in nanocrystals of Haldane-chain compound $\text{Gd}_2\text{BaNiO}_5$ . Applied Physics Letters, 2017, 111, 122403.	3.3	8
76	Half-Sandwich Metal Carbonyl Complexes as Precursors to Functional Materials: From a Near-Infrared-Absorbing Dye to a Single-Molecule Magnet. Journal of the American Chemical Society, 2017, 139, 12069-12075.	13.7	8
77	Magnetization and ESR studies on $\text{Cu}_4\text{Mg}_4$ : An antiferromagnet with a kagome lattice. Physical Review B, 2018, 97, .	3.2	8
78	Solvent-Induced Structural Diversity and Magnetic Research of Two Cobalt(II) Complexes. ACS Omega, 2019, 4, 20905-20910.	3.5	8
79	Optimal diamagnetic dilution concentration for suppressing the dipole-dipole interaction in single-ion magnets. Dalton Transactions, 2020, 49, 2159-2167.	3.3	8
80	1,2-Diaza-4-phospholide complexes of chromium(II): dipotassium organochromates behaving as single-molecule magnets. Dalton Transactions, 2020, 49, 6945-6949.	3.3	8
81	Opening Magnetic Hysteresis by Axial Ferromagnetic Coupling: From Mono-Decker to Double-Decker Metallocrown. Angewandte Chemie, 2021, 133, 5359-5366.	2.0	8
82	Manipulation of Molecular Qubits by Isotope Effect on Spin Dynamics. CCS Chemistry, 2021, 3, 2548-2556.	7.8	8
83	Weak magnetic interaction, large magnetocaloric effect, and underlying spin model in triangular lattice $\text{GdFeTeO}_6$ . Journal of Applied Physics, 2018, 124, 233904.	2.5	7
84	Decoupling of $\text{Gd}^{\text{III}}$ - $\text{Cr}$ magnetism and giant magnetocaloric effect in layered honeycomb tellurate $\text{GdCrTeO}_6$ . Journal of Applied Physics, 2020, 127, 173902.	2.5	7
85	A cobalt(II) chain based on pymca generated <i>in situ</i> from the hydrolysis of 2-cyanopyrimidine: spin canting and magnetic relaxation. RSC Advances, 2019, 9, 31115-31121.	3.6	6
86	A broad range frequency measurement method for continuous and pulsed THz waves. Review of Scientific Instruments, 2020, 91, 014710.	1.3	6
87	Magnetism and ESR of the $\text{S}=\frac{1}{2}$ antiferromagnet $\text{BaCo}_2\text{V}_2\text{O}_{10}$ . Physical Review B, 2022, 105, .	3.2	6
88	Magnetostructural relationship for $\text{M}_2\text{O}_2$ -phenoxido bridged ferric dimers. Dalton Transactions, 2017, 46, 4317-4324.	3.3	5
89	Insights into Magnetic Interactions in a Monodisperse $\text{Gd}_{12}\text{Fe}_{14}$ Metal Cluster. Angewandte Chemie, 2017, 129, 11633-11637.	2.0	5
90	Highly stable polyoxometalate-resorcin[4]arene-based inorganic-organic complexes for catalytic oxidation desulfurization. Applied Organometallic Chemistry, 2019, 33, e5169.	3.5	5

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91	Two-sublattice description of the dimer-trimer chain compound $\text{Li}_2\text{Cu}_5\text{Si}_4\text{O}_{14}$ : High-field magnetization and ESR studies. <i>Physical Review B</i> , 2021, 104, .	3.2	5
92	Magnetic anisotropy of two tetrahedral $\text{Co}(\text{II})$ -halide complexes with triphenylphosphine ligands. <i>Dalton Transactions</i> , 2022, 51, 7530-7538.	3.3	5
93	A C,S bonded quasi-two-coordinate chromium(II) complex showing field-induced slow magnetic relaxation behaviour. <i>Dalton Transactions</i> , 2022, 51, 9218-9222.	3.3	5
94	Tracking the Process of a Solvothermal Domino Reaction Leading to a Stable Triheteroarylmethyl Radical: A Combined Crystallographic and Mass Spectrometric Study. <i>Angewandte Chemie</i> , 2019, 131, 3788-3793.	2.0	4
95	Spin Dynamics of the $S = 1/2$ Pyrochlore System $\text{Cu}_2(\text{OH})_3\text{Cl}$ Studied by Using High-frequency ESR. <i>Journal of the Korean Physical Society</i> , 2011, 58, 270-275.	0.7	3
96	Structure and 3/7-like Magnetization Plateau of Layered $\text{Y}_2\text{Cu}_7(\text{TeO}_3)_6\text{Cl}_6(\text{OH})_2$ Containing Diamond Chains and Trimers. <i>Inorganic Chemistry</i> , 2019, 58, 10680-10685.	4.0	3
97	Slow magnetic relaxation in dinuclear $\text{Co}(\text{III})$ - $\text{Co}(\text{II})$ complexes containing a five-coordinated $\text{Co}(\text{II})$ centre with easy-axis anisotropy. <i>Dalton Transactions</i> , 2022, , .	3.3	3
98	High Magnetic Field ESR in $S = 1$ Skew Chain Antiferromagnet $\text{Ni}_2\text{V}_2\text{O}_7$ Single Crystal. <i>Crystals</i> , 2019, 9, 468.	2.2	2
99	Synthesis, crystal structures, HF-EPR, and magnetic properties of six-coordinate transition metal (Co,) $\text{Tj ETQq1 1 0.784314 rgBT /Ove}$ 12833-12840.	3.6	2
100	Structure and Magnetization Plateau of a Frustrated $\text{Co}_6$ Cluster Antiferromagnet $\text{Sr}_2\text{Co}_3(\text{C}_2\text{O}_4)_3(\text{OH})_4 \cdot 3\text{H}_2\text{O}$ . <i>Crystal Growth and Design</i> , 2021, 21, 149-155.	3.0	2
101	Magnetic anisotropies and slow magnetic relaxation of three tetrahedral tetrakis(pseudohalido)cobalt(II) complexes. <i>New Journal of Chemistry</i> , 2021, 45, 16852-16861.	2.8	2
102	Influence of intrinsic or extrinsic doping on charge state of carbon and its interaction with hydrogen in GaN. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	2
103	Structure and a 1/2-Like Magnetization Plateau in a $S_{\text{eff}} = 1/2$ Skew Chain Compound $[\text{Co}_2(\text{CH}_3\text{O})_2(\text{COOH})_2(\text{H}_2\text{O})_2]_n$ . <i>Crystal Growth and Design</i> , 0, , .	3.0	1
104	Frontispiz: Tracking the Process of a Solvothermal Domino Reaction Leading to a Stable Triheteroarylmethyl Radical: A Combined Crystallographic and Mass Spectrometric Study. <i>Angewandte Chemie</i> , 2019, 131, .	2.0	0
105	Frontispiece: Tracking the Process of a Solvothermal Domino Reaction Leading to a Stable Triheteroarylmethyl Radical: A Combined Crystallographic and Mass Spectrometric Study. <i>Angewandte Chemie - International Edition</i> , 2019, 58, .	13.8	0
106	Dzyaloshinskii-Moriya anisotropy effect on field-induced magnon condensation in the kagome antiferromagnet $\hat{I} \pm$ . <i>Physical Review B</i> , 2021, 104, .	3.2	0