

Mark Murrie

List of Publications by Year in descending order

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111
papers

5,809
citations

70961

41
h-index

76769

74
g-index

124
all docs

124
docs citations

124
times ranked

4205
citing authors

#	ARTICLE	IF	CITATIONS
1	3d single-ion magnets. <i>Chemical Society Reviews</i> , 2015, 44, 2135-2147.	18.7	671
2	Cobalt(ii) single-molecule magnets. <i>Chemical Society Reviews</i> , 2010, 39, 1986.	18.7	522
3	Polyoxometalate-Mediated Self-Assembly of Single-Molecule Magnets: $\{[XW_9O_{34}]_2[Mn^{III}]_4Mn^{II}]_2O_{254}\}$. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 5609-5612.	2.2	254
4	Synthesis and Characterization of a Cobalt(II) Single-Molecule Magnet. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 4653-4656.	7.2	236
5	Studies of a nickel-based single molecule magnet: resonant quantum tunnelling in an S = 12 molecule. Electronic supplementary information (ESI) available: saturation magnetisation at 150 mK; $1/f \propto \omega^2$ vs. T. See http://www.rsc.org/suppdata/cc/b1/b108894g/ . <i>Chemical Communications</i> , 2001, , 2666-2667.	2.2	228
6	Studies of a Nickel-Based Single-Molecule Magnet. <i>Chemistry - A European Journal</i> , 2002, 8, 4867-4876.	1.7	194
7	A Ferromagnetic Mixed-Valent Mn Supertetrahedron: Towards Low-Temperature Magnetic Refrigeration with Molecular Clusters. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 4456-4460.	7.2	184
8	Insight into <i>D_{6h}</i> Symmetry: Targeting Strong Axiality in Stable Dysprosium(III) Hexagonal Bipyramidal Single-Ion Magnets. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 14146-14151.	7.2	166
9	A mixed-valence Co ₇ single-molecule magnet with C ₃ symmetry. <i>Chemical Communications</i> , 2007, , 3473.	2.2	153
10	Synthesis, Structure, and Magnetic Properties of the Single-Molecule Magnet $[Ni_{21}(cit)_{12}(OH)_{10}(H_2O)_{10}]_{16}$. <i>Inorganic Chemistry</i> , 2002, 41, 5133-5140.	1.9	138
11	Pushing the limits of magnetic anisotropy in trigonal bipyramidal Ni(<i>scp</i>) _{ii} (<i>scp</i>). <i>Chemical Science</i> , 2015, 6, 6823-6828.	3.7	136
12	Cobalt(II) Citrate Cubane Single-Molecule Magnet. <i>Inorganic Chemistry</i> , 2008, 47, 7438-7442.	1.9	123
13	Synthesis and characterisation of a Ni ₄ single-molecule magnet with S ₄ symmetry. <i>Dalton Transactions</i> , 2008, , 6409.	1.6	83
14	Synthesis, structural and magnetic characterisation of a new Mn-Gd pivalate: preparation from a pre-formed hexanuclear cluster. <i>Journal of the Chemical Society Dalton Transactions</i> , 1999, , 4125-4126.	1.1	77
15	Molecular Spin Clusters: New Synthetic Approaches and Neutron Scattering Studies. <i>ChemPhysChem</i> , 2003, 4, 910-926.	1.0	76
16	High-Spin M ²⁺ Carboxylate Triangles from the Microwave. <i>Inorganic Chemistry</i> , 2006, 45, 7053-7055.	1.9	71
17	$[Mn_6]$ under Pressure: A Combined Crystallographic and Magnetic Study. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 2828-2831.	7.2	68
18	Chemical and <i>in silico</i> tuning of the magnetisation reversal barrier in pentagonal bipyramidal Dy(<i>scp</i>) _{iii} (<i>scp</i>) single-ion magnets. <i>Chemical Communications</i> , 2018, 54, 8273-8276.	2.2	68

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19	A Cube in a Tetrahedron: Microwave-Assisted Synthesis of an Octametalllic FeIII Cluster. <i>Inorganic Chemistry</i> , 2006, 45, 5281-5283.	1.9	64
20	Exchange interactions and high-energy spin states in Mn ₁₂ -acetate. <i>Physical Review B</i> , 2004, 70, .	1.1	62
21	Assembly of Ni ₇ and Ni ₂₁ Molecular Clusters by Using Citric Acid. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 1957-1960.	7.2	61
22	Solvothermal Syntheses of High-Nuclearity Vanadium(III) Clusters. <i>Chemistry - A European Journal</i> , 2003, 9, 6215-6220.	1.7	59
23	Pressure-induced Jahn-Teller switching in a Mn ₁₂ nanomagnet. <i>Chemical Communications</i> , 2010, 46, 1881-1883.	2.2	57
24	Synthesis structure magnetic properties of [Cu ₅ (bta) ₆ L ₄] (bta=benzotriazolate; L=1,2-diketionate) Clusters. <i>Polyhedron</i> , 1998, 17, 3031-3043.	1.0	54
25	Directed assembly of nanoscale Co(ii)-substituted {Co ₉ [P ₂ W ₁₅] ₃ } and {Co ₁₄ [P ₂ W ₁₅] ₄ } polyoxometalates. <i>Chemical Communications</i> , 2012, 48, 9819.	2.2	54
26	Exchange Interactions at the Origin of Slow Relaxation of the Magnetization in {TbCu ₃ } and {DyCu ₃ } Single-Molecule Magnets. <i>Inorganic Chemistry</i> , 2014, 53, 8970-8978.	1.9	54
27	Engineering macrocyclic high performance pentagonal bipyramidal Dy(III) single-ion magnets. <i>Chemical Communications</i> , 2020, 56, 12037-12040.	2.2	54
28	Field-Induced Slow Relaxation in a Monometallic Manganese(III) Single-Molecule Magnet. <i>Inorganic Chemistry</i> , 2015, 54, 13-15.	1.9	53
29	Probing the origin of the giant magnetic anisotropy in trigonal bipyramidal Ni(II) under high pressure. <i>Chemical Science</i> , 2018, 9, 1551-1559.	3.7	52
30	Molecular magnetism. <i>Annual Reports on the Progress of Chemistry Section A</i> , 2007, 103, 20.	0.8	50
31	Boosting axiality in stable high-coordinate Dy(III) single-molecule magnets. <i>Chemical Communications</i> , 2019, 55, 5950-5953.	2.2	50
32	Nanoscale Cages of Manganese and Nickel with Rock Salt Cores. <i>Journal of the American Chemical Society</i> , 1998, 120, 7365-7366.	6.6	49
33	Inelastic Neutron Scattering on Three Mixed-Valence Dodecanuclear Polyoxovanadate Clusters. <i>Inorganic Chemistry</i> , 2002, 41, 5675-5685.	1.9	49
34	Supertetrahedral decametalllic Ni(II) clusters directed by 1,4,6-tris-alkoxides. <i>Chemical Communications</i> , 2004, , 1418-1419.	2.2	49
35	Magnetic and Optical Studies on an S = 6 Ground-State Cluster [Cr ₁₂ O ₉ (OH) ₃ (O ₂ CCMe ₃) ₁₅]: Determination of, and the Relationship Between, Single-Ion and Cluster Spin Hamiltonian Parameters. <i>Inorganic Chemistry</i> , 2003, 42, 5293-5303.	1.9	48
36	Deltahedra as underlying structural motifs in polynuclear metal chemistry: structure of an undecanuclear manganese potassium cage. <i>Journal of the Chemical Society Dalton Transactions</i> , 1998, , 1423-1424.	1.1	47

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37	High pressure induced spin changes and magneto-structural correlations in hexametallic SMMs. Dalton Transactions, 2009, , 4858.	1.6	47
38	Enhancement of Tb ^{III} –Cu ^{II} Single-Molecule Magnet Performance through Structural Modification. Chemistry - A European Journal, 2016, 22, 12839-12848.	1.7	46
39	Polymetallic clusters of iron(III) with derivatised salicylaldoximes. Dalton Transactions, 2008, , 2043.	1.6	45
40	Directed Synthesis of {Mn ₁₈ Cu ₆ } Heterometallic Complexes. Angewandte Chemie - International Edition, 2013, 52, 1949-1952.	7.2	42
41	Polymerisation of a Cu(II) dimer into 1D chains using high pressure. CrystEngComm, 2009, 11, 2601.	1.3	39
42	Gadolinium-doped magnetite nanoparticles from a single-source precursor. RSC Advances, 2016, 6, 74500-74505.	1.7	34
43	Increasing the crystallisation temperature to access new spin clusters: conversion of [Ni ₈ (cit) ₆ (OH) ₂ (H ₂ O) ₂] ₁₀ to [Ni ₈ (cit) ₆ (OH) ₂] ₁₀ . Chemical Communications, 2003, , 230-231.	2.2	33
44	Insight into D _{6h} Symmetry: Targeting Strong Axiality in Stable Dysprosium(III) Hexagonal Bipyramidal Single-Molecule Magnets. Angewandte Chemie, 2019, 131, 14284-14289.	1.6	33
45	A study of the role of the solvent during magnetite nanoparticle synthesis: tuning size, shape and self-assembly. RSC Advances, 2012, 2, 8027.	1.7	31
46	Formation of octapod MnO nanoparticles with enhanced magnetic properties through kinetically-controlled thermal decomposition of polynuclear manganese complexes. Nanoscale, 2014, 6, 172-176.	2.8	31
47	Pressure induced enhancement of the magnetic ordering temperature in rhenium(IV) monomers. Nature Communications, 2016, 7, 13870.	5.8	30
48	Pressure-induced switching in a copper(II) citrate dimer. CrystEngComm, 2010, 12, 2516.	1.3	29
49	Bis-tris propane as a new multidentate ligand for nickel- and cobalt-based spin clusters. Dalton Transactions, 2011, 40, 334-336.	1.6	29
50	Linking iron(III) carboxylates into high-nuclearity complexes by using Bis-tris. Dalton Transactions, 2008, , 731-733.	1.6	28
51	Slow magnetic relaxation in a 3D network of cobalt(II) citrate cubanes. Dalton Transactions, 2010, 39, 4727.	1.6	28
52	Magnetic Properties of Two New Fe ₄ Single-Molecule Magnets in the Solid State and in Frozen Solution. Chemistry - A European Journal, 2010, 16, 10178-10185.	1.7	27
53	Synthesis and structural characterisation of polynuclear cobalt complexes with partially-deprotonated Bis-tris. Dalton Transactions, 2006, , 3627.	1.6	26
54	High pressure studies of hydroxo-bridged Cu(II) dimers. Dalton Transactions, 2010, 39, 113-123.	1.6	23

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55	There is nothing wrong with being soft: using sulfur ligands to increase axiality in a Dy(D_{4h}) single-ion magnet. <i>Chemical Communications</i> , 2020, 56, 1533-1536.	2.2	23
56	Exploiting host-guest chemistry to manipulate magnetic interactions in metallosupramolecular M_4L_6 tetrahedral cages. <i>Chemical Science</i> , 2021, 12, 5134-5142.	3.7	22
57	Bis-Tris Propane as a New Polydentate Linker in the Synthesis of Iron(III) and Manganese(II/III) Complexes. <i>Inorganic Chemistry</i> , 2008, 47, 9742-9744.	1.9	21
58	A non-topological mechanism for negative linear compressibility. <i>Chemical Communications</i> , 2016, 52, 7486-7489.	2.2	21
59	Turning up the heat: synthesis of octanuclear chromium(III) carboxylates. <i>Chemical Communications</i> , 1999, , 285-286.	2.2	20
60	Self-assembly of ultra-thin lanthanide oxide nanowires via surfactant-mediated imperfect oriented attachment of nanoparticles. <i>CrystEngComm</i> , 2012, 14, 7110.	1.3	20
61	Synthesis and characterisation of a mixed-valence Mn_3 complex with S_6 symmetry by using 2-phenoxybenzoate. <i>Dalton Transactions</i> , 2007, , 728-730.	1.6	18
62	Dangling and Hydrolyzed Ligand Arms in $[\text{Mn}_3]$ and $[\text{Mn}_6]$ Coordination Assemblies: Synthesis, Characterization, and Functional Activity. <i>Inorganic Chemistry</i> , 2017, 56, 2639-2652.	1.9	18
63	Trigonal to Pentagonal Bipyramidal Coordination Switching in a Co(II) Single-Ion Magnet. <i>Inorganic Chemistry</i> , 2019, 58, 9691-9697.	1.9	18
64	Synthesis and characterisation of Fe_6 and Fe_{12} clusters using bicine. <i>Polyhedron</i> , 2009, 28, 1830-1833.	1.0	17
65	High pressure effects on a trimetallic $\text{Mn}_{\text{II/III}}$ SMM. <i>Dalton Transactions</i> , 2009, , 7390.	1.6	17
66	A topologically unique alternating $\{\text{Co}_{\text{III}}\text{Gd}_{\text{III}}\}$ magnetocaloric ring. <i>Chemical Communications</i> , 2017, 53, 4799-4802.	2.2	17
67	In-depth investigation of large axial magnetic anisotropy in monometallic 3d complexes using frequency domain magnetic resonance and <i>ab initio</i> methods: a study of trigonal bipyramidal Co_{II} . <i>Chemical Science</i> , 2019, 10, 6354-6361.	3.7	17
68	Constructing Cr ^{III} -centered heterometallic complexes: $[\text{Ni}_6\text{Cr}^{\text{III}}]$ and $[\text{Co}_6\text{Cr}^{\text{III}}]$ wheels. <i>Dalton Transactions</i> , 2018, 47, 58-61.	1.6	16
69	Access to an unusual Fe_9 core topology from the initial use of tricine in iron(III) cluster chemistry. <i>Dalton Transactions</i> , 2011, 40, 3125.	1.6	15
70	New high-spin clusters featuring transition metals. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1999, 357, 3119-3137.	1.6	14
71	Trapping of a Pseudotetrahedral $\text{Co}_{\text{II}}\text{O}_4$ Core in Mixed-Valence Mixed-Geometry $[\text{Co}_5]$ Coordination Aggregates: Synthetic Marvel, Structures, and Magnetism. <i>Inorganic Chemistry</i> , 2018, 57, 13176-13187.	1.9	14
72	Slow magnetic relaxation in a $\{\text{Co}_{\text{II}}\text{Co}_{\text{III}}\}_2$ complex containing a high magnetic anisotropy trigonal bipyramidal Co_{II} centre. <i>Dalton Transactions</i> , 2018, 47, 9237-9240.	1.6	14

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73	Cubic assembly of a geometrically frustrated {Fe ₁₂ } spin cluster. Dalton Transactions, 2011, 40, 12271.	1.6	13
74	Surface Charge Control of Quantum Dot Blinking. Journal of Physical Chemistry C, 2016, 120, 19487-19491.	1.5	13
75	Magnetic Properties of a Family of [Mn ^{III}] ₄ Ln ^{III} Wheel Complexes: An Experimental and Theoretical Study. Inorganic Chemistry, 2019, 58, 13815-13825.	1.9	13
76	Hydroxido-Supported and Carboxylato Bridge-Driven Aggregation for Discrete [Ni ₄] and Interconnected [Ni ₂] _n Complexes. Inorganic Chemistry, 2016, 55, 10783-10792.	1.9	12
77	Bis-tris propane as a flexible ligand for high-nuclearity complexes. Polyhedron, 2018, 150, 1-9.	1.0	12
78	Access to new magnetic cores in Fe(III) and Fe(III)/Cu(II) spin clusters. Dalton Transactions, 2009, , 9395.	1.6	11
79	Ultra-low temperature structure determination of a Mn ₁₂ single-molecule magnet and the interplay between lattice solvent and structural disorder. CrystEngComm, 2013, 15, 3423.	1.3	11
80	Exploring the Coordination Chemistry of 3,3'-Di(picolinamoyl)-2,2'-bipyridine: One Ligand, Multiple Nuclearities. Inorganic Chemistry, 2014, 53, 8610-8623.	1.9	11
81	Directed synthesis of {Cu ₁₂ Zn ₁₂ } and {Cu ₁₈ Zn ₁₈ } heterometallic complexes. Dalton Transactions, 2015, 44, 19275-19281.	1.6	11
82	Heterometallic lanthanide-centred [Ni ₁₆ Ln ^{III}] ₆ rings. Dalton Transactions, 2018, 47, 12863-12867.	1.6	11
83	Multidentate Ligands for the Synthesis of Multimetallic Complexes. 2. Formation of a Planar Cu ₄ OH Motif. Inorganic Chemistry, 2010, 49, 5350-5352.	1.9	10
84	Ligand-directed synthesis of {Mn ₁₅ } twisted bow-ties. Dalton Transactions, 2017, 46, 11201-11207.	1.6	10
85	Investigation of the magnetic anisotropy in a series of trigonal bipyramidal Mn(II) complexes. Dalton Transactions, 2019, 48, 15480-15486.	1.6	10
86	Heisenberg model of an {Fe ₈ }-cubane cluster. Physical Review B, 2007, 76, .	1.1	8
87	The effect of pressure on the crystal structure of [Cd(PhCOO) ₃ (DMF)] _n to 3.7 GPa and the transition to a second phase at 5.0 GPa. Dalton Transactions, 2010, 39, 7004.	1.6	8
88	Coordinative flexibility of the 2-amino-2-(hydroxymethyl)propane-1,3-diol ligand in the synthesis of polynuclear Fe(III) complexes. Polyhedron, 2013, 52, 227-233.	1.0	8
89	Probing photoinduced spin states in spin-crossover molecules with neutron scattering. Physical Review B, 2017, 95, .	1.1	8
90	A family of [Cu ₂], [Cu ₄] and [Cu ₅] aggregates: alteration of reaction conditions, ancillary bridges and capping anions. New Journal of Chemistry, 2018, 42, 14349-14364.	1.4	8

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91	Tuning the structural motif by tuning the countercation size: from double salts to a 1-D coordination polymer. <i>CrystEngComm</i> , 2006, 8, 346.	1.3	7
92	Rational serendipity: Mn^{II} -synthesis of a large $\{\text{Mn}^{\text{III}}\text{O}(\text{Cul})_5\}$ complex from pre-formed Mn^{II} building blocks. <i>Dalton Transactions</i> , 2016, 45, 18094-18097.	1.6	7
93	A $[\text{Ce}^{21}]$ keplerate. <i>Dalton Transactions</i> , 2017, 46, 7677-7680.	1.6	7
94	Diazine based ligand supported Co^{III} and Co^{IV} coordination complexes: role of anions. <i>New Journal of Chemistry</i> , 2018, 42, 17587-17596.	1.4	7
95	Putting the Squeeze on Molecule-Based Magnets: Exploiting Pressure to Develop Magneto-Structural Correlations in Paramagnetic Coordination Compounds. <i>Magnetochemistry</i> , 2020, 6, 32.	1.0	7
96	High-Pressure Study of Oxo-bridged Mixed-Valent $\text{Mn}^{\text{III}}/\text{Mn}^{\text{IV}}$ Dimers High-Pressure Study of Oxo-bridged Mixed-Valent $\text{Mn}^{\text{III}}/\text{Mn}^{\text{IV}}$ Dimers. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2010, 65, 221-230.	0.3	6
97	Solvothermal synthesis of chromium(III) complexes with the Bis^{tris} ligand. <i>Inorganic Chemistry Communication</i> , 2012, 25, 89-91.	1.8	6
98	Microwave-assisted synthesis: from a mononuclear $\{\text{Co}^{\text{II}}\}$ complex to $\{\text{Co}^{\text{III}}\}$ solvomorphs. <i>Dalton Transactions</i> , 2019, 48, 854-858.	1.6	6
99	Hydroxido supported and differently networked octanuclear Ni_6Ln_2 [$\text{Ln} = \text{Gd}^{\text{III}}$ and Dy^{III}] complexes: structural variation, magnetic properties and theoretical insights. <i>Dalton Transactions</i> , 2021, 50, 5023-5035.	1.6	6
100	Importance of an Axial $\text{Ln}^{\text{III}}\text{-F}$ Bond across the Lanthanide Series and Single-Molecule Magnet Behavior in the Ce and Nd Analogues. <i>Inorganic Chemistry</i> , 2022, 61, 9906-9917.	1.9	6
101	A high-pressure crystallographic and magnetic study of $\text{Na}_5[\text{Mn}(\text{tart})_2] \cdot 12\text{H}_2\text{O} \cdot (\text{tart})$ T_j ETQq1 1 0.781814 rgB5/Overlook		
102	A large axial magnetic anisotropy in trigonal bipyramidal $\text{Fe}^{\text{(II)}}$. <i>Chemical Communications</i> , 2020, 56, 6826-6829.	2.2	5
103	Characterisation of a dodecanuclear chromium(III) cage with an $S = 6$ ground state. <i>Chemical Communications</i> , 1999, , 643-644.	2.2	4
104	Strategic synthesis of $[\text{Cu}_2]$, $[\text{Cu}_4]$ and $[\text{Cu}_5]$ complexes: inhibition and triggering of ligand arm hydrolysis and self-aggregation by chosen ancillary bridges. <i>Dalton Transactions</i> , 2018, 47, 17160-17176.	1.6	4
105	From tetranuclear to pentanuclear $[\text{Co}^{\text{II}}\text{Ln}]$ ($\text{Ln} = \text{Gd}, \text{Tb}, \text{Dy}, \text{Ho}$) complexes across the lanthanide series: effect of varying sequence of ligand addition. <i>Dalton Transactions</i> , 2021, 50, 11861-11877.	1.6	3
106	A pressure-induced displacive phase transition in Tris(ethylenediamine) Nickel(II) nitrate. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2014, 229, .	0.4	2
107	Magnetic anisotropies of Ho^{III} and Dy^{III} single-molecule magnets experimentally determined via polarized neutron diffraction. <i>Dalton Transactions</i> , 2021, 50, 14207-14215.	1.6	2
108	Structural Variations and Magnetic Studies of Polymetallic Cages. <i>Molecular Crystals and Liquid Crystals</i> , 1999, 335, 263-282.	0.3	1

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109	Solvent-induced structural transformation from heptanuclear to decanuclear [CoLn] coordination clusters: trapping of unique counteranion and understanding of aggregation pathways. Dalton Transactions, 2021, 50, 9574-9588.	1.6	1
110	Synthesis of heptanuclear Ni ₄ Dy ₃ coordination aggregate using tridentate ligand: X-ray structure, magnetism and theoretical studies. Inorganica Chimica Acta, 2021, 526, 120524.	1.2	0
111	Constructing "Closed" and "Open" {Mn ₈ } Clusters. Crystal Growth and Design, 0, , .	1.4	0