Richard A Layfield

List of Publications by Year
in descending order

101 papers	9,127 citations	117625 34 h-index	40979 93 g-index
130 all docs	130 docs citations	130 times ranked	4888 citing authors

#	Article	IF	Citations
1	Lanthanide Single-Molecule Magnets. Chemical Reviews, 2013, 113, 5110-5148.	47.7	2,379
2	Magnetic hysteresis up to 80 kelvin in a dysprosium metallocene single-molecule magnet. Science, 2018, 362, 1400-1403.	12.6	1,337
3	A Dysprosium Metallocene Singleâ€Molecule Magnet Functioning at the Axial Limit. Angewandte Chemie - International Edition, 2017, 56, 11445-11449.	13.8	888
4	Organometallic Single-Molecule Magnets. Organometallics, 2014, 33, 1084-1099.	2.3	352
5	A High Anisotropy Barrier in a Sulfurâ€Bridged Organodysprosium Singleâ€Molecule Magnet. Angewandte Chemie - International Edition, 2012, 51, 6976-6980.	13.8	254
6	Influence of the Nâ€Bridging Ligand on Magnetic Relaxation in an Organometallic Dysprosium Singleâ€Molecule Magnet. Chemistry - A European Journal, 2010, 16, 4442-4446.	3.3	221
7	Cyclopentadienyl Ligands in Lanthanide Single-Molecule Magnets: One Ring To Rule Them All?. Accounts of Chemical Research, 2018, 51, 1880-1889.	15.6	198
8	N-Heterocyclic carbene chemistry of iron: fundamentals and applications. Chemical Communications, 2012, 48, 3579.	4.1	183
9	A Lowâ€Symmetry Dysprosium Metallocene Singleâ€Molecule Magnet with a High Anisotropy Barrier. Angewandte Chemie - International Edition, 2016, 55, 11082-11085.	13.8	162
10	Main Group Chemistry at the Interface with Molecular Magnetism. Chemical Reviews, 2019, 119, 8479-8505.	47.7	159
11	A Dysprosium Metallocene Singleâ€Molecule Magnet Functioning at the Axial Limit. Angewandte Chemie, 2017, 129, 11603-11607.	2.0	149
12	Single-molecule magnetism in cyclopentadienyl-dysprosium chlorides. Chemical Communications, 2012, 48, 1508-1510.	4.1	136
13	Influencing the properties of dysprosium single-molecule magnets with phosphorus donor ligands. Nature Communications, 2015, 6, 7492.	12.8	126
14	Strong direct exchange coupling and single-molecule magnetism in indigo-bridged lanthanide dimers. Chemical Communications, 2017, 53, 3130-3133.	4.1	124
15	Normal-to-Abnormal Rearrangement and NHC Activation in Three-Coordinate Iron(II) Carbene Complexes. Journal of the American Chemical Society, 2013, 135, 13338-13341.	13.7	110
16	Magneto-structural correlations in arsenic- and selenium-ligated dysprosium single-molecule magnets. Chemical Science, 2016, 7, 2128-2137.	7.4	105
17	Structure and bonding in three-coordinate N-heterocyclic carbene adducts of iron(ii) bis(trimethylsilyl)amide. Chemical Communications, 2011, 47, 10623.	4.1	89
18	Manganese(ii): the black sheep of the organometallic family. Chemical Society Reviews, 2008, 37, 1098.	38.1	88

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19	Antimony-ligated dysprosium single-molecule magnets as catalysts for stibine dehydrocoupling. Chemical Science, 2017, 8, 2073-2080.	7.4	77
20	A hydride-ligated dysprosium single-molecule magnet. Chemical Communications, 2013, 49, 901-903.	4.1	75
21	Single-Molecule Magnetism in Tetrametallic Terbium and Dysprosium Thiolate Cages. Organometallics, 2013, 32, 1224-1229.	2.3	67
22	Ironâ€•and Cobaltâ€Catalyzed Synthesis of Carbene Phosphinidenes. Angewandte Chemie - International Edition, 2016, 55, 1690-1693.	13.8	63
23	Isolation of a Perfectly Linear Uranium(II) Metallocene. Angewandte Chemie - International Edition, 2020, 59, 2299-2303.	13.8	60
24	Strong Exchange Coupling in a Trimetallic Radicalâ€Bridged Cobalt(II)â€Hexaazatrinaphthylene Complex. Angewandte Chemie - International Edition, 2016, 55, 5521-5525.	13.8	53
25	Fast magnetic relaxation in an octahedral dysprosium tetramethyl-aluminate complex. Dalton Transactions, 2014, 43, 3035-3038.	3.3	47
26	The coordination chemistry of silyl-substituted allyl ligands. Dalton Transactions, 2010, 39, 2469-2483.	3.3	42
27	Rareâ€Earth Cyclobutadienyl Sandwich Complexes: Synthesis, Structure and Dynamic Magnetic Properties. Chemistry - A European Journal, 2018, 24, 16779-16782.	3.3	40
28	Highly selective epoxidation of styrene using a transition metalâ€“aluminium(iii) complex containing the [MeAl(2-py)3]â^anion (2-py = 2-pyridyl). Chemical Communications, 2005, , 198-200.	4.1	39
29	Iron(II) Cage Complexes of N-Heterocyclic Amide and Bis(trimethylsilyl)amide Ligands: Synthesis, Structure, and Magnetic Properties. Inorganic Chemistry, 2011, 50, 2521-2526.	4.0	39
30	Carbene Rearrangements in Three-Coordinate N-Heterocyclic Carbene Complexes of Cobalt(II) Bis(trimethylsilyl)amide. Inorganic Chemistry, 2014, 53, 10578-10584.	4.0	38
31	The first observation of the [Cp3Mn]â€“ anion; structures of hexagonal [(Î·2-Cp)3MnKÂ·1.5thf] and ion-separated [(Î·2-Cp)3Mn]2[Mg(thf)6]Â·2thf. Chemical Communications, 2001, , 1956-1957.	4.1	37
32	Syntheses, structures and magnetic properties of Mn(ii) dimers [CpMn(Î¼-X)]2(Cp = C5H5; X = RNH, R1R2N,) Tj ETQq0 0 0 rgBT /Overlo	3.3	37
33	Single-molecule magnet properties of a monometallic dysprosium pentalene complex. Chemical Communications, 2018, 54, 7085-7088.	4.1	36
34	A Lowâ€Symmetry Dysprosium Metallocene Singleâ€Molecule Magnet with a High Anisotropy Barrier. Angewandte Chemie, 2016, 128, 11248-11251.	2.0	35
35	Uranocenium: Synthesis, Structure, and Chemical Bonding. Angewandte Chemie - International Edition, 2019, 58, 10163-10167.	13.8	34
36	Synthesis and Structure of the Octanuclear Manganese(II) Cage [(Î¼-Cp)Mn{2-NH(4,6-Me2pm)}Â·Mn{2-N(4,6-Me2Pm)}]4 (Cp = C5H5, pm = Pyrimidine). Organometallics, 2001, 20, 4135-4137.	2.3	33

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37	Syntheses and magnetic properties of hexanuclear [Cp2Mn3(L1)4]2and octanuclear [Mn8(L2)12(Î¼4-O)2] (L1= 2-HNC5H5N, L2= 2-NH-3-Br-5-MeC5H3N, Cp = C5H5). Chemical Communications, 2002, , 2980-2981.	4.1	33
38	A Manganese(II) Allyl Complex: Synthesis, Structure, and Magnetic Properties of[Li(thf)4][Mn{Î·3-(Me3Si)2C3H3}{Î·1-(Me3Si)2C3H3}2]. Angewandte Chemie - International Edition, 2004, 43, 3067-3069.	13.8	33
39	Fulvalene as a platform for the synthesis of a dimetallic dysprosocenium single-molecule magnet. Chemical Science, 2020, 11, 5745-5752.	7.4	33
40	A Zinc Catalyzed C(sp³)â^'C(sp²) Suzukiâ€“Miyaura Crossâ€Coupling Reaction Mediated by Arylâ€Zincates. Chemistry - A European Journal, 2017, 23, 15889-15893.	3.3	32
41	Dominance of Cyclobutadienyl Over Cyclopentadienyl in the Crystal Field Splitting in Dysprosium Singleâ€Molecule Magnets. Angewandte Chemie - International Edition, 2022, 61, .	13.8	32
42	Magnetic frustration in a hexaazatrinaphthylene-bridged trimetallic dysprosium single-molecule magnet. Dalton Transactions, 2016, 45, 16556-16560.	3.3	30
43	From double-shelled grids to supramolecular frameworks. Chemical Communications, 2018, 54, 12097-12100.	4.1	30
44	Enhanced single-molecule magnetism in dysprosium complexes of a pristine cyclobutadienyl ligand. Chemical Communications, 2020, 56, 4708-4711.	4.1	30
45	Structural and Magnetic Studies of the Tris(cyclopentadienyl)manganese(II) â€œPaddle-Wheelâ€•Anions [Cp3â^'n(MeCp)nMn]â^' (n=0â€“3, MeCp=C5H4CH3, Cp=C5H5). Chemistry - A European Journal, 2006, 12, 3053-3060.	3.3	29
46	s-Block metal complexes of a bulky, donor-functionalized allyl ligand. Chemical Communications, 2008, , 3142.	4.1	29
47	Yttrium Complexes of Arsine, Arsenide, and Arsinidene Ligands. Angewandte Chemie - International Edition, 2015, 54, 4255-4258.	13.8	28
48	Discovery of a Dysprosium Metallocene Single-Molecule Magnet with Two High-Temperature Orbach Processes. Inorganic Chemistry, 2022, 61, 6017-6025.	4.0	28
49	Applications of manganocene in the synthesis of Mn(ii) amide and imide cages. Dalton Transactions, 2003, , 3002.	3.3	27
50	Spin crossover in phosphorus- and arsenic-bridged cyclopentadienyl-manganese(ii) dimers. Chemical Communications, 2012, 48, 8087.	4.1	26
51	Ansa-tris(allyl) complexes of alkali metals: tripodal analogues of cyclopentadienyl and ansa-metallocene ligands. Chemical Communications, 2007, , 5081.	4.1	24
52	Divalent Transition Metal Silylamide Ate Complexes. European Journal of Inorganic Chemistry, 2014, 2014, 4302-4309.	2.0	24
53	Uranium(<scp>iv</scp>) cyclobutadienyl sandwich compounds: synthesis, structure and chemical bonding. Chemical Communications, 2020, 56, 944-947.	4.1	24
54	Open-shell doublet character in a hexaazatrinaphthylene trianion complex. Chemical Communications, 2015, 51, 11478-11481.	4.1	23

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55	Strong Exchange Coupling in a Trimetallic Radicalâ€Bridged Cobalt(II)â€Hexaazatrinaphthylene Complex. Angewandte Chemie, 2016, 128, 5611-5615.	2.0	23
56	A three-coordinate ironâ€“silylene complex stabilized by ligandâ€“ligand dispersion forces. Dalton Transactions, 2016, 45, 11301-11305.	3.3	23
57	Reactivity of three-coordinate ironâ€“NHC complexes towards phenylselenol and lithium phenylselenide. Dalton Transactions, 2014, 43, 4251-4254.	3.3	22
58	Structure, Bonding, and Paramagnetism in the Manganese(II) Tris-Allyl Anions [Mn{Î·x-(C3H3R2)3}]-(R = H,) Tj ETQq0 0 0 rgBT /Overlock	2.3	21
59	Thermal expansion and magnetic properties of benzoquinone-bridged dinuclear rare-earth complexes. Dalton Transactions, 2017, 46, 13582-13589.	3.3	19
60	The cationic cluster Grignard [{MgCl(thf)2}3(Î¼3-C3H5)2]+. Chemical Communications, 2006, , 2039-2041.	4.1	18
61	A structural and magnetic study of organolanthanide(iii) amides. Dalton Transactions, 2006, , 1660-1666.	3.3	18
62	Ironâ€•and Cobaltâ€Catalyzed Synthesis of Carbene Phosphinidenes. Angewandte Chemie, 2016, 128, 1722-1725.	2.0	18
63	Double Ligand Activation in Silyl-Substituted Rare-Earth Cyclobutadienyl Complexes. Organometallics, 2020, 39, 8-12.	2.3	18
64	Ethene Activation and Catalytic Hydrogenation by a Low-Valent Uranium Pentalene Complex. Journal of the American Chemical Society, 2020, 142, 89-92.	13.7	18
65	Interpreting Molecular Crystal Disorder in Plumbocene, Pb(C5H5)2:Â Insight from Theory. Journal of the American Chemical Society, 2002, 124, 6775-6780.	13.7	17
66	Molecular and electronic structures of donor-functionalized dysprosium pentadienyl complexes. Dalton Transactions, 2015, 44, 7109-7113.	3.3	17
67	Synthesis and single-molecule magnet properties of a trimetallic dysprosium metallocene cation. Chemical Communications, 2021, 57, 6396-6399.	4.1	17
68	Activation of Câ€“H bonds by rare-earth metallocene-butyl complexes. Chemical Communications, 2017, 53, 9990-9993.	4.1	16
69	Carbonyl Back-Bonding Influencing the Rate of Quantum Tunnelling in a Dysprosium Metallocene Single-Molecule Magnet. Inorganic Chemistry, 2020, 59, 642-647.	4.0	16
70	Alkali Metal Complexes of Silyl-Substitutedansa-(Tris)allyl Ligands: Metal-, Co-Ligand- and Substituent-Dependent Stereochemistry. European Journal of Inorganic Chemistry, 2009, 2009, 4157-4167.	2.0	15
71	A donor-functionalized, silyl-substituted pentadienyllithium: structural insight from experiment and theory. Chemical Communications, 2011, 47, 6162.	4.1	14
72	Spinâ€Crossover Properties of an Iron(II) Coordination Nanohoop. Angewandte Chemie - International Edition, 2021, 60, 3515-3518.	13.8	14

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73	Synthesis and Structure of the Novel â€œPaddle-Wheelâ€•Complex [{(Î·5-Cp)2Pb(Î¼:Î·5-Cp)K}Â·2THF]. Organometallics, 2003, 22, 2528-2530.	2.3	13
74	Transmetalation of Chromocene by Lithium-Amide, -Phosphide, and -Arsenide Nucleophiles. Inorganic Chemistry, 2013, 52, 3878-3883.	4.0	12
75	Uranocenium: Synthesis, Structure, and Chemical Bonding. Angewandte Chemie, 2019, 131, 10269-10273.	2.0	11
76	Synthesis, bonding properties and ether activation reactivity of cyclobutadienyl-ligated hybrid uranocenes. Chemical Science, 2021, 12, 2948-2954.	7.4	11
77	Addition of pnictogen atoms to chromium(<scp>ii</scp>): synthesis, structure and magnetic properties of a chromium(<scp>iv</scp>) phosphide and a chromium(<scp>iii</scp>) arsenide. Chemical Science, 2014, 5, 2443-2448.	7.4	10
78	Synthesis and structure of cationic guanidinate-bridged bimetallic {Li7M} cubes (M = Mn, Co, Zn) with inverse crown counter anions. Dalton Transactions, 2011, 40, 10918.	3.3	9
79	Structural Influences in Lithium Pentadienylsilane Complexes. Organometallics, 2013, 32, 4448-4451.	2.3	9
80	Lanthanide Organometallics as Single-Molecule Magnets. Topics in Organometallic Chemistry, 2019, , 253-280.	0.7	9
81	Coupling of Nitric Oxide and Release of Nitrous Oxide from Rare-Earth-Dinitrosyliron Complexes. Journal of the American Chemical Society, 2020, 142, 4104-4107.	13.7	9
82	A new, tetragonal, helical phase of plumbocene, Cp2Pb; variations on a molecular string (Cp=C5H5). Journal of Organometallic Chemistry, 2002, 650, 75-76.	1.8	8
83	Synthesis, Structure, and Paramagnetism of Manganese(II) Iminophosphate Complexes. Inorganic Chemistry, 2012, 51, 9104-9109.	4.0	7
84	Directed Lithiation of Pentadienylsilanes. Organometallics, 2015, 34, 2348-2355.	2.3	7
85	Synthesis and Structure of [trans-{1,2-Bis(Î²2-O,O-N-) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 262 Td (phenylcarbamoyl)cyclopent	2.3	6
86	Exchange-coupled oxygen- and sulfur-bridged cyclopentadienyl-manganese(ii) cages. Dalton Transactions, 2013, 42, 71-74.	3.3	6
87	Dominance of Cyclobutadienyl Over Cyclopentadienyl in the Crystal Field Splitting in Dysprosium Singleâ€Molecule Magnets. Angewandte Chemie, 2022, 134, .	2.0	6
88	Synthesis and structure of [Cp2PbCpthfâ€Šâ€ŠNa]Â·0.5thf; implications to the control of dimensionality in p block metallocene anion systems (Cpâ€…=â€…C5H5, Cpthfâ€…=â€…{C5H4}CH2C4H7O). Dalton Transactions RSC, 2000, , 2247-2248.	3.3	5
89	Benzotriazolate cage complexes of tin(ii) and lithium: halide-influenced serendipitous assembly. Dalton Transactions, 2011, 40, 7559.	3.3	5
90	Group 14: silicon, germanium, tin and lead. Organometallic Chemistry, 0, , 155-165.	0.6	4

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91	Isolation of a Perfectly Linear Uranium(II) Metallocene. Angewandte Chemie, 2020, 132, 2319-2323.	2.0	4
92	New Talent: Europe, 2018. Dalton Transactions, 2018, 47, 10319-10319.	3.3	2
93	Electronic structure and magnetic properties of rare-earth organometallic sandwich compounds. Fundamental Theories of Physics, 2019, , 89-121.	0.3	2
94	Chapter 5. Highlights in low-coordinate group 14 organometallic chemistry. Organometallic Chemistry, 2014, , 148-164.	0.6	2
95	Geoff Cloke at 65: a pioneer in organometallic chemistry. Dalton Transactions, 2018, 47, 9929-9933.	3.3	1
96	Highlights in low-coordinate group 14 organometallic chemistry. Organometallic Chemistry, 0, , 133-148.	0.6	1
97	f-Element Organometallic Single-Molecule Magnets. , 2022, , 211-248.		1
98	Frontiers in Molecular Main Group Chemistry: a web themed issue. Chemical Communications, 2012, 48, 10161.	4.1	0
99	InnenrÃ¼cktitelbild: Strong Exchange Coupling in a Trimetallic Radicalâ€Bridged Cobalt(II)â€Hexaazatrinaphthylene Complex (Angew. Chem. 18/2016). Angewandte Chemie, 2016, 128, 5701-5701.	2.0	0
100	Berichtigung: A Dysprosium Metallocene Singleâ€Molecule Magnet Functioning at the Axial Limit. Angewandte Chemie, 2020, 132, 19004-19004.	2.0	0
101	Spinâ€Crossover Properties of an Iron(II) Coordination Nanohoop. Angewandte Chemie, 2021, 133, 3557-3560.	2.0	0