

# David Mills

## List of Publications by Year in descending order

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96  
papers

6,182  
citations

81743

39  
h-index

71532

76  
g-index

112  
all docs

112  
docs citations

112  
times ranked

3531  
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular magnetic hysteresis at 60 kelvin in dysprosocenium. <i>Nature</i> , 2017, 548, 439-442.	13.7	1,450
2	A delocalized arene-bridged diuranium single-molecule magnet. <i>Nature Chemistry</i> , 2011, 3, 454-460.	6.6	299
3	The first near-linear bis(amide) f-block complex: a blueprint for a high temperature single molecule magnet. <i>Chemical Communications</i> , 2015, 51, 101-103.	2.2	236
4	Synthesis of a Uranium(VI)-Carbene: Reductive Formation of Uranyl(V)-Methanides, Oxidative Preparation of a $[R_2C=UO_2]^{2+}$ Analogue of the $[O=UO]^{2+}$ Uranyl Ion ( $R = Ph_2PNSiMe_3$ ), and Comparison of the Nature of $U^{IV}=C$ , $U^V=C$ , and $U^{VI}=C$ Double Bonds. <i>Journal of the American Chemical Society</i> , 2012, 134, 10047-10054.	6.6	163
5	Early metal bis(phosphorus-stabilised)carbene chemistry. <i>Chemical Society Reviews</i> , 2011, 40, 2164.	18.7	153
6	$\pi$ and $\sigma$ -Donation in an Unsupported Uranium-Gallium Bond. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 1077-1080.	7.2	136
7	Uranium-Carbon Multiple Bonding: Facile Access to the Pentavalent Uranium Carbene $[U\{C(PPh_2)NSiMe_3\}_2](Cl)_2(I)$ and Comparison of $U^V=C$ and $U^{IV}=C$ Bonds. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 2383-2386.	7.2	132
8	The inverse-trans-influence in tetravalent lanthanide and actinide bis(carbene) complexes. <i>Nature Communications</i> , 2017, 8, 14137.	5.8	128
9	Bis-Monophospholyl Dysprosium Cation Showing Magnetic Hysteresis at 48 K. <i>Journal of the American Chemical Society</i> , 2019, 141, 19935-19940.	6.6	123
10	A Lanthanide-Gallium Complex Stabilized by the N-Heterocyclic Carbene Group. <i>Journal of the American Chemical Society</i> , 2007, 129, 5360-5361.	6.6	113
11	Synthesis and Electronic Structures of Heavy Lanthanide Metallocenium Cations. <i>Journal of the American Chemical Society</i> , 2017, 139, 18714-18724.	6.6	111
12	Regioselective C-H Activation and Sequential C-C and C-O Bond Formation Reactions of Aryl Ketones Promoted by an Yttrium Carbene. <i>Journal of the American Chemical Society</i> , 2010, 132, 14379-14381.	6.6	108
13	Metal-metal bonds in f-element chemistry. <i>Dalton Transactions</i> , 2009, , 5592.	1.6	106
14	The Inherent Single-Molecule Magnet Character of Trivalent Uranium. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 3430-3433.	7.2	102
15	Actinide covalency measured by pulsed electron paramagnetic resonance spectroscopy. <i>Nature Chemistry</i> , 2017, 9, 578-583.	6.6	102
16	Lanthanide tri-benzyl complexes: structural variations and useful precursors to phosphorus-stabilised lanthanide carbenes. <i>Dalton Transactions</i> , 2010, 39, 500-510.	1.6	100
17	The Nature of the $U=C$ Double Bond: Pushing the Stability of High-Oxidation-State Uranium Carbenes to the Limit. <i>Chemistry - A European Journal</i> , 2013, 19, 7071-7083.	1.7	99
18	Understanding magnetic relaxation in single-ion magnets with high blocking temperature. <i>Physical Review B</i> , 2020, 101, .	1.1	94

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19	The reactivity of gallium(i) and indium(i) halides towards bipyridines, terpyridines, imino-substituted pyridines and bis(imino)acenaphthenes. <i>New Journal of Chemistry</i> , 2004, 28, 207.	1.4	92
20	Complexes of an Anionic Gallium(I) N-Heterocyclic Carbene Analogue with Group 14 Element(II) Fragments: A Synthetic, Structural and Theoretical Studies. <i>Inorganic Chemistry</i> , 2006, 45, 7242-7251.	1.9	80
21	A Heterobimetallic Gallyl Complex Containing an Unsupported Ga <sup>III</sup> -Y Bond. <i>Inorganic Chemistry</i> , 2009, 48, 3520-3522.	1.9	77
22	Group 9 and 11 Metal(I) Gallyl Complexes Stabilized by N-Heterocyclic Carbene Coordination: A First Structural Characterization of Ga <sup>III</sup> -M (M = Cu or Ag) Bonds. <i>Organometallics</i> , 2007, 26, 3424-3430.	1.1	76
23	Mononuclear Dysprosium Alkoxide and Aryloxide Single-Molecule Magnets. <i>Chemistry - A European Journal</i> , 2021, 27, 7625-7645.	1.7	72
24	Studies of hysteresis and quantum tunnelling of the magnetisation in dysprosium single molecule magnets. <i>Dalton Transactions</i> , 2019, 48, 8541-8545.	1.6	71
25	Low coordinate lanthanide(ii) complexes supported by bulky guanidinato and amidinato ligands. <i>Dalton Transactions</i> , 2010, 39, 1877.	1.6	68
26	Synthesis, Structural Characterization, and Theoretical Studies of Complexes of Magnesium and Calcium with Gallium Heterocycles. <i>Inorganic Chemistry</i> , 2006, 45, 3146-3148.	1.9	67
27	Synthesis and reactivity of the yttrium-alkyl-carbene complex [Y(BIPM)(CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> )(THF)] (BIPM =) <i>Tj ETQq1 1 0.784314 rgBT / Overlo</i>	1.6	67
28	Physicochemical Properties of Near-Linear Lanthanide(II) Bis(silylamide) Complexes (Ln = Sm, Eu, Tm, Yb). <i>Inorganic Chemistry</i> , 2016, 55, 10057-10067.	1.9	66
29	An EPR and ENDOR Investigation of a Series of Diazabutadiene-Group 13 Complexes. <i>Chemistry - A European Journal</i> , 2005, 11, 2972-2982.	1.7	65
30	Heteroleptic [M(CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> (THF) <sub>3</sub> ](M = Y or Er): Remarkably Stable Precursors to Yttrium and Erbium T-Shaped Carbenes. <i>Organometallics</i> , 2009, 28, 6771-6776.	1.1	64
31	Oxidative addition of an imidazolium cation to an anionic gallium(I) N-heterocyclic carbene analogue: Synthesis and characterisation of novel gallium hydride complexes. <i>Journal of Organometallic Chemistry</i> , 2006, 691, 3060-3064.	0.8	62
32	New vistas in the molecular chemistry of thorium: low oxidation state complexes. <i>Dalton Transactions</i> , 2016, 45, 7537-7549.	1.6	61
33	Investigations into the preparation of groups 13-15 N-heterocyclic carbene analogues. <i>Inorganica Chimica Acta</i> , 2008, 361, 427-435.	1.2	53
34	The reactivity of gallium(-i), (-ii) and (-iii) heterocycles towards Group 15 substrates: attempts to prepare gallium-terminated pnictinidene complexes. <i>Dalton Transactions</i> , 2006, , 64-72.	1.6	48
35	Bis(phosphorus-stabilised)methanide and methandiide derivatives of group 1&#211;5 and f-element metals. <i>Organometallic Chemistry</i> , 0, , 29-55.	0.6	47
36	Homoleptic Trigonal Planar Lanthanide Complexes Stabilized by Superbulky Silylamide Ligands. <i>Organometallics</i> , 2015, 34, 2314-2325.	1.1	45

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37	Synthesis and structural characterisation of group 10 metal(ii) gallyl complexes: analogies with platinum diboration catalysts?. Dalton Transactions, 2008, , 4395.	1.6	44
38	Reactivity of the Yttrium Alkyl Carbene Complex [Y(BIPM)(CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> )(THF)] (BIPM = Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 Td ({C(PPh <sub>2</sub> substitutions, and Additions to Nontypical Transformations. Organometallics, 2013, 32, 1251-1264.	1.1	43
39	Uranium(III)-carbon multiple bonding supported by arene $\hat{\pi}$ -bonding in mixed-valence hexauranium nanometre-scale rings. Nature Communications, 2018, 9, 2097.	5.8	43
40	[U <sup>III</sup> ]{N(SiMe <sub>2</sub> i>t</i>Bu) <sub>2</sub> ] <sub>3</sub> : A Structurally Authenticated Trigonal Planar Actinide Complex. Chemistry - A European Journal, 2014, 20, 14579-14583.	1.7	39
41	Concomitant Carboxylate and Oxalate Formation From the Activation of CO <sub>2</sub> by a Thorium(III) Complex. Chemistry - A European Journal, 2016, 22, 17976-17979.	1.7	39
42	Isolation and electronic structures of derivatized manganocene, ferrocene and cobaltocene anions. Nature Chemistry, 2021, 13, 243-248.	6.6	39
43	Facile Transformations of a 1,3,5-Triphosphacyclohexadienyl Anion within the Coordination Sphere of Group 13 and 14 Elements: A Synthesis of 1,3-Diphosphacyclopentadienyl Complexes and Phosphaorganometallic Cage Compounds. Organometallics, 2006, 25, 4799-4807.	1.1	38
44	Investigation into the Effects of a Trigonal-Planar Ligand Field on the Electronic Properties of Lanthanide(II) Tris(silylamide) Complexes (Ln = Sm, Eu, Tm, Yb). Inorganic Chemistry, 2017, 56, 5959-5970.	1.9	38
45	Synthesis and further reactivity studies of some transition metal gallyl complexes. Journal of Organometallic Chemistry, 2010, 695, 2410-2417.	0.8	35
46	Reactivity Studies of a T-Shaped Yttrium Carbene: C $\hat{=}$ F and C $\hat{=}$ O Bond Activation and C $\hat{\cdot}$ C Bond Formation Promoted by [Y(BIPM)(I)(THF) <sub>2</sub> ] (BIPM = C(PPh <sub>2</sub> NSiMe <sub>3</sub> ) <sub>2</sub> ). Organometallics, 2013, 32, 1239-1250.	1.1	35
47	Reactivity of the uranium( <sup>iv</sup> ) carbene complex [U(BIPM <sup>TMS</sup> )(Cl)( <sup>1/4</sup> -Cl) <sub>2</sub> Li(THF) <sub>2</sub> ] (BIPM <sup>TMS</sup> = Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 702 Td ({C(PPh <sub>2</sub> substituents: metallo-Wittig, adduct formation, C $\hat{=}$ F bond activation, and [2 + 2]-cycloaddition reactions. Dalton Transactions, 2014, 43, 14275-14283.	1.6	35
48	A Cost-Effective Semi-Ab Initio Approach to Model Relaxation in Rare-Earth Single-Molecule Magnets. Journal of Physical Chemistry Letters, 2021, 12, 8826-8832.	2.1	35
49	White phosphorus activation by a Th( <sup>iii</sup> ) complex. Dalton Transactions, 2016, 45, 2390-2393.	1.6	30
50	Analysis of Lanthanide-Radical Magnetic Interactions in Ce(III) 2,2'-Bipyridyl Complexes. Inorganic Chemistry, 2017, 56, 2496-2505.	1.9	30
51	The performance of density functional theory for the description of ground and excited state properties of inorganic and organometallic uranium compounds. Journal of Organometallic Chemistry, 2018, 857, 58-74.	0.8	30
52	Terbocenium: completing a heavy lanthanide metallocenium cation family with an alternative anion abstraction strategy. Chemical Communications, 2018, 54, 9182-9185.	2.2	30
53	Light Lanthanide Metallocenium Cations Exhibiting Weak Equatorial Anion Interactions. Chemistry - A European Journal, 2019, 25, 7749-7758.	1.7	29
54	Probing Relaxation Dynamics in Five-Coordinate Dysprosium Single-Molecule Magnets. Chemistry - A European Journal, 2020, 26, 7774-7778.	1.7	29

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55	Flexible coordination of bulky amidinates and guanidinates towards rhodium(i): conversion of kinetic to thermodynamic isomers. Dalton Transactions, 2008, , 4799.	1.6	28
56	Double Reduction of 4,4'-Bipyridine and Reductive Coupling of Pyridine by Two Thorium(III) Single-Electron Transfers. Chemistry - A European Journal, 2017, 23, 2290-2293.	1.7	26
57	A double-dysprosocenium single-molecule magnet bound together with neutral ligands. Chemical Communications, 2020, 56, 5677-5680.	2.2	26
58	Electronic structures of bent lanthanide(III) complexes with two N-donor ligands. Chemical Science, 2019, 10, 10493-10502.	3.7	25
59	Group 1 Bis(iminophosphorano)methanides, Part 1: <i>N</i> -Alkyl and Silyl Derivatives of the Sterically Demanding Methanes H <sub>2</sub> C(PPh <sub>2</sub> NR) <sub>2</sub> (R = Adamantyl and Tj ETQq1 1 0.784314 rgBT /Overlo	1.1	22
60	Group 1 Bis(iminophosphorano)methanides, Part 2: <i>N</i> -Aryl Derivatives of the Sterically Demanding Methanes H <sub>2</sub> C(PPh <sub>2</sub> NR) <sub>2</sub> (R = 2,4,6-trimethylphenyl or 2,6-diisopropylphenyl). Organometallics, 2011, 30, 5326-5337.	1.1	22
61	Synthesis and structural characterization of lanthanum and cerium substituted cyclopentadienyl borohydride complexes. Journal of Organometallic Chemistry, 2018, 857, 45-51.	0.8	22
62	f-Element silicon and heavy tetrel chemistry. Chemical Science, 2020, 11, 10871-10886.	3.7	21
63	Synthesis and Characterisation of Lanthanide <i>N</i> -Trimethylsilyl and -Mesityl Functionalised Bis(iminophosphorano)methanides and -Methanediides. Inorganics, 2013, 1, 46-69.	1.2	18
64	Yttrium Methanide and Methanediide Bis(silyl)amide Complexes. Organometallics, 2017, 36, 4584-4590.	1.1	17
65	Exploring Synthetic Routes to Heteroleptic U(III), U(IV), and Th(IV) Bulky Bis(silyl)amide Complexes. European Journal of Inorganic Chemistry, 2018, 2018, 2356-2362.	1.0	17
66	Slow magnetic relaxation in distorted tetrahedral Dy(III) aryloxide complexes. Chemical Communications, 2021, 57, 9208-9211.	2.2	17
67	Salt metathesis versus protonolysis routes for the synthesis of silylamide Hauser base (R <sub>2</sub> NMgX; X =) Tj ETQq1 1 0.784314 rgBT /Over	1.6	16
68	Synthesis and Reactivity of a Cerium(III) Scorpionate Complex Containing a Redox Non-Innocent 2,2'-Bipyridine Ligand. Inorganics, 2015, 3, 534-553.	1.2	15
69	SmCp <sup>R</sup> -mediated cross-coupling of allyl and propargyl ethers with ketoesters and a telescoped approach to complex cycloheptanols. Chemical Communications, 2016, 52, 13503-13506.	2.2	15
70	Salt metathesis routes to homoleptic near-linear Mg(II) and Ca(II) bulky bis(silyl)amide complexes. Dalton Transactions, 2018, 47, 12526-12533.	1.6	14
71	Heteroleptic Samarium(III) Chalcogenide Complexes: Opportunities for Giant Exchange Coupling in Bridging f <sup>n</sup> - and f <sup>n-1</sup> -Radical Lanthanide Dichalcogenides. Inorganic Chemistry, 2020, 59, 7571-7583.	1.9	14
72	f-Block Phospholyl and Arsolyl Chemistry. Chemistry - A European Journal, 2021, 27, 6645-6665.	1.7	14

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73	Synthesis and characterization of neutral and cationic boron guanidinate complexes. <i>Main Group Chemistry</i> , 2010, 9, 23-30.	0.4	13
74	Activation of Heteroallenes CO <sub>x</sub> S <sub>2-x</sub> (x= 0-2): Experimental and Theoretical Evidence of the Synthetic Versatility of a Bulky Guanidinato SmII Complex. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 792-796.	1.0	13
75	Silylamides: towards a half-century of stabilising remarkable f-element chemistry. <i>Organometallic Chemistry</i> , 0, , 123-156.	0.6	13
76	Synthesis and Crystal Structures of Anionic Gallium(II) and Gallium(III) Heterocyclic Compounds Derived from a Gallium(I) N-Heterocyclic Carbene Analogue. <i>Journal of Chemical Crystallography</i> , 2010, 40, 965-969.	0.5	12
77	A structural investigation of heteroleptic lanthanide substituted cyclopentadienyl complexes. <i>New Journal of Chemistry</i> , 2015, 39, 7633-7639.	1.4	11
78	Polarised covalent thorium(IV) and uranium(IV) silicon bonds. <i>Chemical Communications</i> , 2020, 56, 12620-12623.	2.2	11
79	<sup>29</sup> Si NMR Spectroscopy as a Probe of s- and f-Block Metal(II) Silanide Bond Covalency. <i>Journal of the American Chemical Society</i> , 2021, 143, 9813-9824.	6.6	11
80	Reactions of alkali metal and yttrium alkyls with a sterically demanding bis(aryloxysilyl)methane: Formation of aryloxide complexes by Si-O bond cleavage. <i>Comptes Rendus Chimie</i> , 2010, 13, 593-602.	0.2	10
81	Gallium tri-chloride derivatives of the sterically demanding pyridines 2,6-Ar <sub>2</sub> C <sub>6</sub> H <sub>3</sub> N (Ar=2,4,6-Me <sub>3</sub> C <sub>6</sub> H <sub>2</sub> ) $T_j$ ETQq1 1.0, 0.784314 rgBT / 1.0	1.0	9
82	Thorium(IV) alkyl synthesis from a thorium(III) cyclopentadienyl complex and an N-heterocyclic olefin. <i>Journal of Organometallic Chemistry</i> , 2018, 857, 75-79.	0.8	9
83	Synthesis and characterisation of light lanthanide bis-phospholyl borohydride complexes. <i>Dalton Transactions</i> , 2020, 49, 6504-6511.	1.6	9
84	Structural Characterization of Lithium and Sodium Bulky Bis(silyl)amide Complexes. <i>Molecules</i> , 2018, 23, 1138.	1.7	8
85	Heteroleptic samarium(III) halide complexes probed by fluorescence-detected L <sub>3</sub> -edge X-ray absorption spectroscopy. <i>Dalton Transactions</i> , 2018, 47, 10613-10625.	1.6	8
86	Low-coordinate rare-earth and actinide complexes. <i>Fundamental Theories of Physics</i> , 2019, , 1-87.	0.1	5
87	Metallocene Anions: From Electrochemical Curiosities to Isolable Complexes. <i>European Journal of Inorganic Chemistry</i> , 2022, 2022, .	1.0	5
88	X-ray Crystallographic Studies of   (LH)GaCl <sub>2</sub>   and   Li(THF) <sub>4</sub>     Ga(L) <sub>2</sub>   (L=C <sub>6</sub> H <sub>4</sub> (NCH <sub>2</sub> But) <sub>2</sub> -1,2). <i>Main Group Metal Chemistry</i> , 2009, 32, .	0.6	3
89	Microwave Spectra and Theoretical Calculations for Two Structural Isomers of Methylmanganese Pentacarbonyl. <i>Inorganic Chemistry</i> , 2020, 59, 6432-6438.	1.9	3
90	Functionalized Tris(anilido)triazacyclononanes as Hexadentate Ligands for the Encapsulation of U(III), U(IV) and La(III) Cations. <i>Inorganics</i> , 2021, 9, 86.	1.2	3

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91	Chromium chains as polydentate fluoride ligands for actinides and group IV metals. Dalton Transactions, 2018, 47, 6361-6369.	1.6	2
92	Synthesis of heteroleptic yttrium and dysprosium 1,2,4-tris(trimethylsilyl)cyclopentadienyl complexes. Australian Journal of Chemistry, 2022, 75, 684-697.	0.5	2
93	Frontispiece: Mononuclear Dysprosium Alkoxide and Aryloxide Single-Molecule Magnets. Chemistry - A European Journal, 2021, 27, .	1.7	1
94	Small Molecule Activation by Lanthanide Complexes. , 2022, , 441-469.		1
95	An X-ray Crystallographic Study of the Diphosphacyclobutenyl Gallium Complex, [Ga <sub>2</sub> {C(But)P(H)C(But)=P}] <sub>2</sub> . Main Group Metal Chemistry, 2006, 29, .	0.6	0
96	Frontispiece: Block Phospholyl and Arsolyl Chemistry. Chemistry - A European Journal, 2021, 27, .	1.7	0