

Trevor W Hayton

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114
papers

4,398
citations

39
h-index

63
g-index

121
ext. papers

4,929
ext. citations

8.8
avg, IF

6.19
L-index

#	Paper	IF	Citations
114	Oxo ligand functionalization in the uranyl ion (UO ₂ ²⁺). <i>Coordination Chemistry Reviews</i> , 2010 , 254, 197-214	14.2	250
113	Recent developments in actinide-ligand multiple bonding. <i>Chemical Communications</i> , 2013 , 49, 2956-73	5.8	231
112	Synthesis of imido analogs of the uranyl ion. <i>Science</i> , 2005 , 310, 1941-3	33.3	193
111	Metal-ligand multiple bonding in uranium: structure and reactivity. <i>Dalton Transactions</i> , 2010 , 39, 1145-58	4.3	192
110	A Cu ₂₅ Nanocluster with Partial Cu(0) Character. <i>Journal of the American Chemical Society</i> , 2015 , 137, 13319-24	16.4	172
109	Synthesis and reactivity of the imido analogues of the uranyl ion. <i>Journal of the American Chemical Society</i> , 2006 , 128, 10549-59	16.4	114
108	Synthesis of a nitrido-substituted analogue of the uranyl ion, [N=U=O] ⁺ . <i>Journal of the American Chemical Society</i> , 2010 , 132, 6888-9	16.4	109
107	Synthesis, molecular and electronic structure of U(V)(O)[N(SiMe ₃) ₂] ₃ . <i>Inorganic Chemistry</i> , 2012 , 51, 1625-33	5.3	95
106	Synthesis, characterization, and reactivity of a uranyl beta-diketiminato complex. <i>Journal of the American Chemical Society</i> , 2008 , 130, 2005-14	16.4	89
105	An Organometallic Cu Nanocluster: Synthesis, Characterization, Immobilization on Silica, and "Click" Chemistry. <i>Journal of the American Chemical Society</i> , 2018 , 140, 394-400	16.4	88
104	Use of (77)Se and (125)Te NMR Spectroscopy to Probe Covalency of the Actinide-Chalcogen Bonding in [Th(En){N(SiMe ₃) ₂] ₃ (E = Se, Te; n = 1, 2) and Their Oxo-Uranium(VI) Congeners. <i>Journal of the American Chemical Society</i> , 2016 , 138, 814-25	16.4	86
103	Synthesis of a phosphorano-stabilized U(IV)-carbene via one-electron oxidation of a U(III)-ylide adduct. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6894-7	16.4	83
102	Quantifying the σ and π Interactions between U(V) f orbitals and halide, alkyl, alkoxide, amide and ketimide ligands. <i>Journal of the American Chemical Society</i> , 2013 , 135, 10742-54	16.4	81
101	High-valent uranium alkyls: evidence for the formation of U(VI)(CH ₂ SiMe ₃) ₆ . <i>Journal of the American Chemical Society</i> , 2011 , 133, 11732-43	16.4	79
100	Homoleptic uranium(IV) alkyl complexes: synthesis and characterization. <i>Journal of the American Chemical Society</i> , 2009 , 131, 15512-21	16.4	73
99	Ligand-Exchange-Induced Growth of an Atomically Precise Cu ₂₉ Nanocluster from a Smaller Cluster. <i>Chemistry of Materials</i> , 2016 , 28, 8385-8390	9.6	72
98	Bonding trends traversing the tetravalent actinide series: synthesis, structural, and computational analysis of An(IV)((Ar)acnac) ₄ complexes (An = Th, U, Np, Pu; (Ar)acnac = ArNC(Ph)CHC(Ph)O; Ar = 3,5-(t)Bu ₂ C ₆ H ₃). <i>Inorganic Chemistry</i> , 2012 , 51, 8557-66	5.1	71

97	Exploring the effects of reduction or Lewis acid coordination on the U=O bond of the uranyl moiety. <i>Inorganic Chemistry</i> , 2009 , 48, 3065-72	5.1	70
96	Synthesis and spectroscopic and computational characterization of the chalcogenido-substituted analogues of the uranyl ion, [OUE] ₂ ⁺ (E = S, Se). <i>Journal of the American Chemical Society</i> , 2013 , 135, 5352-5	16.4	68
95	Oxo ligand silylation in a uranyl beta-ketoiminate complex. <i>Journal of the American Chemical Society</i> , 2010 , 132, 7248-9	16.4	68
94	Exchange of an imido ligand in bis(imido) complexes of uranium. <i>Journal of the American Chemical Society</i> , 2006 , 128, 12622-3	16.4	68
93	Synthesis of uranium-ligand multiple bonds by cleavage of a trityl protecting group. <i>Journal of the American Chemical Society</i> , 2014 , 136, 96-9	16.4	67
92	Case Studies in Nanocluster Synthesis and Characterization: Challenges and Opportunities. <i>Accounts of Chemical Research</i> , 2018 , 51, 2456-2464	24.3	66
91	Reduction of pentavalent uranyl to U(IV) facilitated by oxo functionalization. <i>Journal of the American Chemical Society</i> , 2009 , 131, 17532-3	16.4	63
90	Probing the 5f orbital contribution to the bonding in a U(V) ketimide complex. <i>Journal of the American Chemical Society</i> , 2012 , 134, 4931-40	16.4	59
89	A rare uranyl(VI)-alkyl ate complex [Li(DME) _{1.5}] ₂ [UO ₂ (CH ₂ SiMe ₃) ₄] and its comparison with a homoleptic uranium(VI)-hexaalkyl. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 3259-63	16.4	59
88	Redox-switchable carboranes for uranium capture and release. <i>Nature</i> , 2020 , 577, 652-655	50.4	57
87	Mixed-ligand uranyl(V) beta-diketiminato/beta-diketonate complexes: synthesis and characterization. <i>Inorganic Chemistry</i> , 2008 , 47, 7415-23	5.1	53
86	Formation of a Ce(IV) Oxo Complex via Inner Sphere Nitrate Reduction. <i>Journal of the American Chemical Society</i> , 2016 , 138, 12743-12746	16.4	51
85	Comparison of the reactivity of 2-Li-C ₆ H ₄ CH ₂ NMe ₂ with MCl ₄ (M=Th, U): isolation of a thorium aryl complex or a uranium benzyne complex. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 10589-92	16.4	51
84	Facile reduction of a uranyl(VI) beta-ketoiminate complex to U(IV) upon oxo silylation. <i>Inorganic Chemistry</i> , 2011 , 50, 5105-12	5.1	51
83	Synthesis and characterization of a Cu ₁₄ hydride cluster supported by neutral donor ligands. <i>Chemistry - A European Journal</i> , 2015 , 21, 5341-4	4.8	50
82	Thorium-ligand multiple bonds reductive deprotection of a trityl group. <i>Chemical Science</i> , 2015 , 6, 3891-3899	38.9	46
81	Synthesis and characterization of an iron(IV) ketimide complex. <i>Journal of the American Chemical Society</i> , 2010 , 132, 12814-6	16.4	46
80	Understanding the role of hyponitrite in nitric oxide reduction. <i>Inorganic Chemistry</i> , 2015 , 54, 9330-41	5.1	45

79	Borane-mediated silylation of a metal-oxo ligand. <i>Inorganic Chemistry</i> , 2011 , 50, 4695-7	5.1	45
78	Synthesis, Characterization, and Reactivity of the Group 11 Hydrido Clusters [AgH(dppm)(OAc)] and [CuH(dppm)(OAc)]. <i>Inorganic Chemistry</i> , 2016 , 55, 12435-12440	5.1	40
77	Coordination of N-donor ligands to a uranyl(V) beta-diketimate complex. <i>Inorganic Chemistry</i> , 2009 , 48, 11799-808	5.1	40
76	Silylation of the uranyl ion using B(C ₆ F ₅) ₃ -activated Et ₃ SiH. <i>Inorganic Chemistry</i> , 2011 , 50, 9642-9	5.1	38
75	Synthesis and reactivity of a uranyl-imidazolyl complex. <i>Chemical Communications</i> , 2012 , 48, 1484-6	5.8	37
74	Synthesis, Thermochemistry, Bonding, and ¹³ C NMR Chemical Shift Analysis of a Phosphorano-Stabilized Carbene of Thorium. <i>Organometallics</i> , 2017 , 36, 4519-4524	3.8	36
73	Enediolate-dilithium amide mixed aggregates in the enantioselective alkylation of arylacetic acids: structural studies and a stereochemical model. <i>Journal of the American Chemical Society</i> , 2013 , 135, 16853-64	16.4	35
72	Synthesis and characterization of three homoleptic alkoxides of uranium: [Li(THF)] ₂ [UIV(OtBu) ₆], [Li(Et ₂ O)][UV(OtBu) ₆], and UVI(OtBu) ₆ . <i>Inorganic Chemistry</i> , 2008 , 47, 4752-61	5.1	35
71	In pursuit of homoleptic actinide alkyl complexes. <i>Inorganic Chemistry</i> , 2013 , 52, 3556-64	5.1	34
70	Synthesis of a cobalt(IV) ketimide with a squashed tetrahedral geometry. <i>Chemical Communications</i> , 2013 , 49, 2888-90	5.8	33
69	Stabilizing high-valent metal ions with a ketimide ligand set: synthesis of Mn(N=C(t)Bu) ₂) ₄ . <i>Inorganic Chemistry</i> , 2011 , 50, 4660-8	5.1	33
68	Lithium Enolates in the Enantioselective Construction of Tetrasubstituted Carbon Centers with Chiral Lithium Amides as Noncovalent Stereodirecting Auxiliaries. <i>Journal of the American Chemical Society</i> , 2017 , 139, 527-533	16.4	32
67	Synthesis of a terminal Ce(IV) oxo complex by photolysis of a Ce(III) nitrate complex. <i>Chemical Science</i> , 2017 , 8, 7873-7878	9.4	31
66	Reactivity and Mössbauer spectroscopic characterization of an Fe(IV) ketimide complex and reinvestigation of an Fe(IV) norbornyl complex. <i>Inorganic Chemistry</i> , 2013 , 52, 8218-27	5.1	30
65	Low-valent molecular plutonium halide complexes. <i>Inorganic Chemistry</i> , 2008 , 47, 8412-9	5.1	30
64	Use of N NMR spectroscopy to probe covalency in a thorium nitride. <i>Chemical Science</i> , 2019 , 10, 6431-6436	9.4	28
63	An entry route into non-aqueous plutonyl coordination chemistry. <i>Chemical Communications</i> , 2007 , 1659-61	5.8	28
62	Oxo Ligand Substitution in a Cationic Uranyl Complex: Synergistic Interaction of an Electrophile and a Reductant. <i>Inorganic Chemistry</i> , 2015 , 54, 7038-44	5.1	27

61	Reversible chalcogen-atom transfer to a terminal uranium sulfide. <i>Inorganic Chemistry</i> , 2014 , 53, 12683-5.1	27
60	Reactivity of UH ₃ with mild oxidants. <i>Dalton Transactions</i> , 2008 , 6121-6	4.3 26
59	Understanding the origins of O-U-O bending in the uranyl (UO) ion. <i>Dalton Transactions</i> , 2018 , 47, 1003-1009	25
58	Synthesis, structure and bonding of hexaphenyl thorium(IV): observation of a non-octahedral structure. <i>Chemical Communications</i> , 2016 , 52, 689-92	5.8 24
57	Perturbation of the O-U-O Angle in Uranyl by Coordination to a 12-Membered Macrocyclic. <i>Inorganic Chemistry</i> , 2016 , 55, 5693-701	5.1 23
56	Reductive silylation of the uranyl ion with Ph ₃ SiOTf. <i>Inorganic Chemistry</i> , 2014 , 53, 12237-9	5.1 22
55	Synthesis and characterization of [M ₂ (N=CtBu ₂) ₅]- (M=Mn, Fe, Co): metal ketimide complexes with strong metal-metal interactions. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 12772-5	16.4 21
54	Recent Developments in Late Metal Nitrosyl Chemistry. <i>Comments on Inorganic Chemistry</i> , 2012 , 33, 207-248	21
53	Quantifying the Electron Donor and Acceptor Abilities of the Ketimide Ligands in M(N?C(t)Bu ₂) ₄ (M = V, Nb, Ta). <i>Inorganic Chemistry</i> , 2015 , 54, 10081-95	5.1 20
52	Synthesis of a "Masked" Terminal Nickel(II) Sulfide by Reductive Deprotection and its Reaction with Nitrous Oxide. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 14956-9	16.4 20
51	Reactivity of a Nickel Sulfide with Carbon Monoxide and Nitric Oxide. <i>Journal of the American Chemical Society</i> , 2016 , 138, 12352-5	16.4 20
50	Reactivity of UI ₄ (OEt ₂) ₂ with phenols: probing the chemistry of the U-I bond. <i>Dalton Transactions</i> , 2009 , 3681-7	4.3 18
49	Coupling of an aldehyde or ketone to pyridine mediated by a tungsten imido complex. <i>Inorganic Chemistry</i> , 2005 , 44, 9506-17	5.1 17
48	Reactivity of [U(CH ₂ SiMe ₂ NSiMe ₃)(NR ₂) ₂] (R = SiMe ₃) with elemental chalcogens: towards a better understanding of chalcogen atom transfer in the actinides. <i>New Journal of Chemistry</i> , 2015 , 39, 7563-7566	2.6 16
47	Uranyl Coordination by the 14-Membered Macrocyclic Dibenzo-tetramethyltetraaza[14]annulene. <i>Inorganic Chemistry</i> , 2017 , 56, 6638-6644	5.1 15
46	Promoting oxo functionalization in the uranyl ion by ligation to ketimides. <i>Journal of Organometallic Chemistry</i> , 2018 , 857, 34-37	2.3 15
45	Synthesis and reactivity of a nickel(II) thioperoxide complex: demonstration of sulfide-mediated NO reduction. <i>Chemical Science</i> , 2018 , 9, 6580-6588	9.4 15
44	Synthesis, Characterization, and Electrochemistry of the Homoleptic f Element Ketimide Complexes [Li][M(N?CtBuPh)] (M = Ce, Th). <i>Inorganic Chemistry</i> , 2019 , 58, 12654-12661	5.1 14

43	Divergent Reactivity of TEMPO with MBr ₃ (M = B, Al). <i>European Journal of Inorganic Chemistry</i> , 2013 , 2013, 3817-3820	2.3	13
42	A Rare Uranyl(VI) Alkyl Ate Complex [Li(DME) _{1.5}] ₂ [UO ₂ (CH ₂ SiMe ₃) ₄] and Its Comparison with a Homoleptic Uranium(VI) Hexaalkyl. <i>Angewandte Chemie</i> , 2013 , 125, 3341-3345	3.6	13
41	A Ketimide-Stabilized Palladium Nanocluster with a Hexagonal Aromatic Pd Core. <i>Inorganic Chemistry</i> , 2020 , 59, 1471-1480	5.1	13
40	Activation of CS ₂ by a "masked" terminal nickel sulfide. <i>Dalton Transactions</i> , 2016 , 45, 14508-10	4.3	13
39	Synthesis and Characterization of "Atlas-Sphere" Copper Nanoclusters: New Insights into the Reaction of Cu with Thiols. <i>Inorganic Chemistry</i> , 2019 , 58, 8739-8749	5.1	12
38	Probing the Electronic Structure of a Thorium Nitride Complex by Solid-State N NMR Spectroscopy. <i>Inorganic Chemistry</i> , 2020 , 59, 10138-10145	5.1	12
37	Isolation of a uranyl amide by "ate" complex formation. <i>Dalton Transactions</i> , 2010 , 39, 6635-7	4.3	12
36	Synthesis and Crystallographic Characterization of the Tetravalent Actinide-DOTA Complexes [An([#] DOTA)(DMSO)] (An = Th, U). <i>Inorganic Chemistry</i> , 2019 , 58, 8253-8256	5.1	11
35	Subnanometer-Sized Copper Clusters: A Critical Re-evaluation of the Synthesis and Characterization of Cu(MPP) (HMPP = 2-Mercapto-5-n-propylpyrimidine). <i>Inorganic Chemistry</i> , 2017 , 56, 8390-8396	5.1	11
34	Enantioselective Alkylation of 2-Alkylpyridines Controlled by Organolithium Aggregation. <i>Journal of the American Chemical Society</i> , 2019 , 141, 15024-15028	16.4	10
33	Synthesis and Characterization of a Linear, Two-Coordinate Pt(II) Ketimide Complex. <i>Inorganic Chemistry</i> , 2019 , 58, 15927-15935	5.1	10
32	Uranyl Oxo Silylation Promoted by Silsesquioxane Coordination. <i>Journal of the American Chemical Society</i> , 2020 , 142, 8738-8747	16.4	9
31	Organometallic Actinide Complexes with Novel Oxidation States and Ligand Types 2018 , 181-236		8
30	Synthesis and Reactivity of a U(IV) Dibenzynes Complex. <i>Organometallics</i> , 2016 , 35, 494-502	3.8	8
29	Comparison of the Reactivity of 2-Li-C ₆ H ₄ CH ₂ NMe ₂ with MCl ₄ (M=Th, U): Isolation of a Thorium Aryl Complex or a Uranium Benzynes Complex. <i>Angewandte Chemie</i> , 2013 , 125, 10783-10786	3.6	8
28	Synthesis and Characterization of Two Uranyl-Aryl "Ate" Complexes. <i>Chemistry - A European Journal</i> , 2021 , 27, 5885-5889	4.8	8
27	Oxidation of the 14-Membered Macrocyclic Dibenzotetramethyltetraaza[14]annulene upon Ligation to the Uranyl Ion. <i>Inorganic Chemistry</i> , 2018 , 57, 8317-8324	5.1	8
26	Coordination of Uranyl to the Redox-Active Calix[4]pyrrole Ligand. <i>Inorganic Chemistry</i> , 2020 , 59, 8629-8634	5.3	7

25	Generation of a Ni ₃ Phosphinidene Cluster from the Ni(0) Synthone, Ni(β -CPh ₃) ₂ . <i>Organometallics</i> , 2020 , 39, 1360-1365	3.8	7
24	A Re-examination of the Synthesis of Monolayer-Protected Co (SCHCHPh) Nanoclusters: Unexpected Formation of a Thiolate-Protected Co(II) T ₃ Supertetrahedron. <i>Inorganic Chemistry</i> , 2018 , 57, 8189-8194	5.1	7
23	Synthesis of a Masked Terminal Nickel(II) Sulfide by Reductive Deprotection and its Reaction with Nitrous Oxide. <i>Angewandte Chemie</i> , 2015 , 127, 15169-15172	3.6	7
22	Trapping of an Ni(II) Sulfide by a CoI Fulvene Complex. <i>Organometallics</i> , 2017 , 36, 1765-1769	3.8	6
21	Synthesis, Electrochemistry, and Reactivity of the Actinide Trisulfides [K(18-crown-6)][An(β -S ₃)(NR ₂) ₃] (An = U, Th; R = SiMe ₃). <i>Inorganic Chemistry</i> , 2016 , 55, 9150-3	5.1	6
20	An iron ketimide single-molecule magnet [Fe(N=CPh)] with suppressed through-barrier relaxation. <i>Chemical Science</i> , 2020 , 11, 4753-4757	9.4	6
19	Synthesis and Characterization of [M ₂ (N ⁺ CtBu ₂) ₅][M=Mn, Fe, Co]: Metal Ketimide Complexes with Strong Metal-Metal Interactions. <i>Angewandte Chemie</i> , 2012 , 124, 12944-12947	3.6	5
18	Synthesis of a "Masked" Terminal Zinc Sulfide and Its Reactivity with Brønsted and Lewis Acids. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 8947-8951	16.4	4
17	Reactivity of [Ce(NR ₂) ₃] (R = SiMe ₃) with Prospective Carbon Atom Transfer Reagents. <i>Organometallics</i> , 2020 , 39, 2375-2382	3.8	4
16	Progress toward the Isolation of Late Metal Terminal Sulfides. <i>European Journal of Inorganic Chemistry</i> , 2020 , 2020, 3613-3626	2.3	4
15	Expanding the Nonaqueous Chemistry of Neptunium: Synthesis and Structural Characterization of [Np(NR)Cl], [Np(NR)Cl], and [Np{(R)(SiMeH)}(NR)] (R = SiMe). <i>Inorganic Chemistry</i> , 2021 , 60, 2740-2748	5.1	4
14	Synthesis of Parent Acetylide and Dicarbide Complexes of Thorium and Uranium and an Examination of Their Electronic Structures. <i>Inorganic Chemistry</i> , 2021 , 60, 15413-15420	5.1	4
13	Homoleptic Perchlorophenyl "Ate" Complexes of Thorium(IV) and Uranium(IV). <i>Inorganic Chemistry</i> , 2021 , 60, 12436-12444	5.1	3
12	Understanding the Early Stages of Nickel Sulfide Nanocluster Growth: Isolation of Ni ⁰ , Ni ^I , Ni ^{II} , and Ni Intermediates. <i>Small</i> , 2021 , 17, e2003133	11	2
11	[NiSe(PET)] Revisited: Isolation and Characterization of [NiSeCl(PET)]. <i>Inorganic Chemistry</i> , 2021 , 60, 17586-17592	5.1	2
10	Synthesis of Bis(trityl)iron(II) and Formation of the Iron(0)-Stabilized o,o-Isomer of Gomberg's Dimer. <i>Organometallics</i> ,	3.8	1
9	Synthesis of a heterobimetallic actinide nitride and an analysis of its bonding.. <i>Chemical Science</i> , 2021 , 12, 15519-15527	9.4	1
8	Synthesis and electronic structure analysis of the actinide allenylidenes, [(NR) ₂ An(CCCPh)] (An = U, Th; R = SiMe). <i>Chemical Science</i> , 2021 , 12, 14383-14388	9.4	1

7	[Ni(CNBu)] ₂ [Cl]: A nickel isocyanide nanocluster with a folded nanosheet structure. <i>Journal of Chemical Physics</i> , 2021 , 154, 211102	3.9	1
6	Synthesis of a Masked Terminal Zinc Sulfide and Its Reactivity with Brønsted and Lewis Acids. <i>Angewandte Chemie</i> , 2020 , 132, 9032-9036	3.6	1
5	SYNTHESIS OF SELECTED TRANSITION METAL AND MAIN GROUP COMPOUNDS WITH SYNTHETIC APPLICATIONS. <i>Inorganic Syntheses</i> , 2018 , 155-204		1
4	Reductive Coupling of Xylyl Isocyanide Mediated by Low-Valent Uranium. <i>Organometallics</i> , 2021 , 40, 2934-2938	3.8	1
3	Synthesis and Characterization of Two "Tied-Back" Lithium Ketimides and Isolation of a Ketimide-Bridged [Cr] Dimer with Strong Antiferromagnetic Coupling. <i>Inorganic Chemistry</i> , 2021 , 60, 4996-5004	5.1	0
2	Selective electrochemical capture and release of uranyl from aqueous alkali, lanthanide, and actinide mixtures using redox-switchable carboranes.. <i>Chemical Science</i> , 2022 , 13, 3369-3374	9.4	0
1	Hydride, Alkyl, Aryl, Acetylide, Carbonyl, and Cyanide Complexes of the Actinides 2021 ,		