Trevor W Hayton

List of Publications by Year in Descending Order

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	Selective electrochemical capture and release of uranyl from aqueous alkali, lanthanide, and actinide mixtures using redox-switchable carboranes.. *Chemical Science*, **2022**, 13, 3369-3374	9.4	0
113	[NiSe(PEt)] Revisited: Isolation and Characterization of [NiSeCl(PEt)]. *Inorganic Chemistry*, **2021**, 60, 17586-17592	5.1	2
112	Synthesis of a heterobimetallic actinide nitride and an analysis of its bonding.. *Chemical Science*, **2021**, 12, 15519-15527	9.4	1
111	Synthesis and electronic structure analysis of the actinide allenylidenes, [{(NR)}An(CCCPh)] (An = U, Th; R = SiMe). *Chemical Science*, **2021**, 12, 14383-14388	9.4	1
110	Understanding the Early Stages of Nickel Sulfide Nanocluster Growth: Isolation of Ni , Ni , Ni , and Ni Intermediates. *Small*, **2021**, 17, e2003133	11	2
109	Synthesis and Characterization of Two "Tied-Back" Lithium Ketimides and Isolation of a Ketimide-Bridged [Cr] Dimer with Strong Antiferromagnetic Coupling. *Inorganic Chemistry*, **2021**, 60, 4996-5004	5.1	0
108	[Ni(CNBu)][Cl]: A nickel isocyanide nanocluster with a folded nanosheet structure. *Journal of Chemical Physics*, **2021**, 154, 211102	3.9	1
107	Synthesis and Characterization of Two Uranyl-Aryl "Ate" Complexes. *Chemistry - A European Journal* , **2021**, 27, 5885-5889	4.8	8
106	Hydride, Alkyl, Aryl, Acetylide, Carbonyl, and Cyanide Complexes of the Actinides **2021**,		
105	Expanding the Nonaqueous Chemistry of Neptunium: Synthesis and Structural Characterization of [Np(NR)Cl], [Np(NR)Cl], and [Np{(R)(SiMeH)}(NR)] (R = SiMe). *Inorganic Chemistry*, **2021**, 60, 2740-2748	5.1	4
104	Homoleptic Perchlorophenyl "Ate" Complexes of Thorium(IV) and Uranium(IV). *Inorganic Chemistry*, **2021**, 60, 12436-12444	5.1	3
103	Reductive Coupling of Xylyl Isocyanide Mediated by Low-Valent Uranium. *Organometallics*, **2021**, 40, 2934-2938	3.8	1
102	Synthesis of Parent Acetylide and Dicarbide Complexes of Thorium and Uranium and an Examination of Their Electronic Structures. *Inorganic Chemistry*, **2021**, 60, 15413-15420	5.1	4
101	Coordination of Uranyl to the Redox-Active Calix[4]pyrrole Ligand. *Inorganic Chemistry*, **2020**, 59, 8629-8634	5.1	7
100	Synthesis of a "Masked" Terminal Zinc Sulfide and Its Reactivity with Brønsted and Lewis Acids. *Angewandte Chemie - International Edition*, **2020**, 59, 8947-8951	16.4	4
99	Probing the Electronic Structure of a Thorium Nitride Complex by Solid-State N NMR Spectroscopy. *Inorganic Chemistry*, **2020**, 59, 10138-10145	5.1	12
98	Redox-switchable carboranes for uranium capture and release. *Nature*, **2020**, 577, 652-655	50.4	57

97	Reactivity of [Ce(NR2)3] (R = SiMe3) with Prospective Carbon Atom Transfer Reagents. *Organometallics*, **2020**, 39, 2375-2382	3.8	4
96	Generation of a Ni3 Phosphinidene Cluster from the Ni(0) Synthon, Ni(□-CPh3)2. *Organometallics*, **2020**, 39, 1360-1365	3.8	7
95	A Ketimide-Stabilized Palladium Nanocluster with a Hexagonal Aromatic Pd Core. *Inorganic Chemistry*, **2020**, 59, 1471-1480	5.1	13
94	Progress toward the Isolation of Late Metal Terminal Sulfides. *European Journal of Inorganic Chemistry*, **2020**, 2020, 3613-3626	2.3	4
93	Synthesis of a □Masked□Terminal Zinc Sulfide and Its Reactivity with Br□sted and Lewis Acids. *Angewandte Chemie*, **2020**, 132, 9032-9036	3.6	1
92	Uranyl Oxo Silylation Promoted by Silsesquioxane Coordination. *Journal of the American Chemical Society*, **2020**, 142, 8738-8747	16.4	9
91	An iron ketimide single-molecule magnet [Fe(N[double bond, length as m-dash]CPh)] with suppressed through-barrier relaxation. *Chemical Science*, **2020**, 11, 4753-4757	9.4	6
90	Enantioselective Alkylation of 2-Alkylpyridines Controlled by Organolithium Aggregation. *Journal of the American Chemical Society*, **2019**, 141, 15024-15028	16.4	10
89	Synthesis, Characterization, and Electrochemistry of the Homoleptic f Element Ketimide Complexes [Li][M(N?CBuPh)] (M = Ce, Th). *Inorganic Chemistry*, **2019**, 58, 12654-12661	5.1	14
88	Use of N NMR spectroscopy to probe covalency in a thorium nitride. *Chemical Science*, **2019**, 10, 6431-6436	9.4	28
87	Synthesis and Crystallographic Characterization of the Tetravalent Actinide-DOTA Complexes [An(□DOTA)(DMSO)] (An = Th, U). *Inorganic Chemistry*, **2019**, 58, 8253-8256	5.1	11
86	Synthesis and Characterization of "Atlas-Sphere" Copper Nanoclusters: New Insights into the Reaction of Cu with Thiols. *Inorganic Chemistry*, **2019**, 58, 8739-8749	5.1	12
85	Synthesis and Characterization of a Linear, Two-Coordinate Pt(II) Ketimide Complex. *Inorganic Chemistry*, **2019**, 58, 15927-15935	5.1	10
84	Understanding the origins of O-U-O bending in the uranyl (UO) ion. *Dalton Transactions*, **2018**, 47, 1003-1009	4.0	25
83	Organometallic Actinide Complexes with Novel Oxidation States and Ligand Types **2018**, 181-236		8
82	Promoting oxo functionalization in the uranyl ion by ligation to ketimides. *Journal of Organometallic Chemistry*, **2018**, 857, 34-37	2.3	15
81	A Re-examination of the Synthesis of Monolayer-Protected Co (SCHCHPh) Nanoclusters: Unexpected Formation of a Thiolate-Protected Co(II) T3 Supertetrahedron. *Inorganic Chemistry*, **2018**, 57, 8189-8194	5.1	7
80	An Organometallic Cu Nanocluster: Synthesis, Characterization, Immobilization on Silica, and "Click" Chemistry. *Journal of the American Chemical Society*, **2018**, 140, 394-400	16.4	88

79	Case Studies in Nanocluster Synthesis and Characterization: Challenges and Opportunities. *Accounts of Chemical Research*, **2018**, 51, 2456-2464	24.3	66
78	SYNTHESIS OF SELECTED TRANSITION METAL AND MAIN GROUP COMPOUNDS WITH SYNTHETIC APPLICATIONS. *Inorganic Syntheses*, **2018**, 155-204		1
77	Synthesis and reactivity of a nickel(ii) thioperoxide complex: demonstration of sulfide-mediated NO reduction. *Chemical Science*, **2018**, 9, 6580-6588	9.4	15
76	Oxidation of the 14-Membered Macrocycle Dibenzotetramethyltetraaza[14]annulene upon Ligation to the Uranyl Ion. *Inorganic Chemistry*, **2018**, 57, 8317-8324	5.1	8
75	Trapping of an NiII Sulfide by a CoI Fulvene Complex. *Organometallics*, **2017**, 36, 1765-1769	3.8	6
74	Synthesis, Thermochemistry, Bonding, and 13C NMR Chemical Shift Analysis of a Phosphorano-Stabilized Carbene of Thorium. *Organometallics*, **2017**, 36, 4519-4524	3.8	36
73	Uranyl Coordination by the 14-Membered Macrocycle Dibenzotetramethyltetraaza[14]annulene. *Inorganic Chemistry*, **2017**, 56, 6638-6644	5.1	15
72	Lithium Enolates in the Enantioselective Construction of Tetrasubstituted Carbon Centers with Chiral Lithium Amides as Noncovalent Stereodirecting Auxiliaries. *Journal of the American Chemical Society*, **2017**, 139, 527-533	16.4	32
71	Synthesis of a terminal Ce(iv) oxo complex by photolysis of a Ce(iii) nitrate complex. *Chemical Science*, **2017**, 8, 7873-7878	9.4	31
70	Subnanometer-Sized Copper Clusters: A Critical Re-evaluation of the Synthesis and Characterization of Cu(MPP) (HMPP = 2-Mercapto-5-n-propylpyrimidine). *Inorganic Chemistry*, **2017**, 56, 8390-8396	5.1	11
69	Synthesis, Characterization, and Reactivity of the Group 11 Hydrido Clusters [AgH(dppm)(OAc)] and [CuH(dppm)(OAc)]. *Inorganic Chemistry*, **2016**, 55, 12435-12440	5.1	40
68	Formation of a Ce(IV) Oxo Complex via Inner Sphere Nitrate Reduction. *Journal of the American Chemical Society*, **2016**, 138, 12743-12746	16.4	51
67	Ligand-Exchange-Induced Growth of an Atomically Precise Cu29 Nanocluster from a Smaller Cluster. *Chemistry of Materials*, **2016**, 28, 8385-8390	9.6	72
66	Use of (77)Se and (125)Te NMR Spectroscopy to Probe Covalency of the Actinide-Chalcogen Bonding in [Th(En){N(SiMe3)2}3](-) (E = Se, Te; n = 1, 2) and Their Oxo-Uranium(VI) Congeners. *Journal of the American Chemical Society*, **2016**, 138, 814-25	16.4	86
65	Synthesis and Reactivity of a U(IV) Dibenzyne Complex. *Organometallics*, **2016**, 35, 494-502	3.8	8
64	Synthesis, structure and bonding of hexaphenyl thorium(IV): observation of a non-octahedral structure. *Chemical Communications*, **2016**, 52, 689-92	5.8	24
63	Activation of CS2 by a "masked" terminal nickel sulfide. *Dalton Transactions*, **2016**, 45, 14508-10	4.3	13
62	Perturbation of the O-U-O Angle in Uranyl by Coordination to a 12-Membered Macrocycle. *Inorganic Chemistry*, **2016**, 55, 5693-701	5.1	23

61	Synthesis, Electrochemistry, and Reactivity of the Actinide Trisulfides [K(18-crown-6)][An(η3-S3)(NR2)3] (An = U, Th; R = SiMe3). *Inorganic Chemistry*, **2016**, 55, 9150-3	5.1	6
60	Reactivity of a Nickel Sulfide with Carbon Monoxide and Nitric Oxide. *Journal of the American Chemical Society*, **2016**, 138, 12352-5	16.4	20
59	Synthesis and characterization of a Cu14 hydride cluster supported by neutral donor ligands. *Chemistry - A European Journal*, **2015**, 21, 5341-4	4.8	50
58	Oxo Ligand Substitution in a Cationic Uranyl Complex: Synergistic Interaction of an Electrophile and a Reductant. *Inorganic Chemistry*, **2015**, 54, 7038-44	5.1	27
57	Understanding the role of hyponitrite in nitric oxide reduction. *Inorganic Chemistry*, **2015**, 54, 9330-41	5.1	45
56	A Cu25 Nanocluster with Partial Cu(0) Character. *Journal of the American Chemical Society*, **2015**, 137, 13319-24	16.4	172
55	Quantifying the Electron Donor and Acceptor Abilities of the Ketimide Ligands in M(N?C(t)Bu2)4 (M = V, Nb, Ta). *Inorganic Chemistry*, **2015**, 54, 10081-95	5.1	20
54	Thorium-ligand multiple bonds reductive deprotection of a trityl group. *Chemical Science*, **2015**, 6, 3891-3899	8.4	46
53	Synthesis of a "Masked" Terminal Nickel(II) Sulfide by Reductive Deprotection and its Reaction with Nitrous Oxide. *Angewandte Chemie*, **2015**, 127, 15169-15172	3.6	7
52	Synthesis of a "Masked" Terminal Nickel(II) Sulfide by Reductive Deprotection and its Reaction with Nitrous Oxide. *Angewandte Chemie - International Edition*, **2015**, 54, 14956-9	16.4	20
51	Reactivity of [U(CH2SiMe2NSiMe3)(NR2)2] (R = SiMe3) with elemental chalcogens: towards a better understanding of chalcogen atom transfer in the actinides. *New Journal of Chemistry*, **2015**, 39, 7563-7566	3.6	16
50	Reductive silylation of the uranyl ion with Ph3SiOTf. *Inorganic Chemistry*, **2014**, 53, 12237-9	5.1	22
49	Synthesis of uranium-ligand multiple bonds by cleavage of a trityl protecting group. *Journal of the American Chemical Society*, **2014**, 136, 96-9	16.4	67
48	Reversible chalcogen-atom transfer to a terminal uranium sulfide. *Inorganic Chemistry*, **2014**, 53, 12683-5	5.1	27
47	Quantifying the δ and φ interactions between U(V) f orbitals and halide, alkyl, alkoxide, amide and ketimide ligands. *Journal of the American Chemical Society*, **2013**, 135, 10742-54	16.4	81
46	Synthesis and spectroscopic and computational characterization of the chalcogenido-substituted analogues of the uranyl ion, [OUE]2+ (E = S, Se). *Journal of the American Chemical Society*, **2013**, 135, 5352-5	16.4	68
45	Recent developments in actinide-ligand multiple bonding. *Chemical Communications*, **2013**, 49, 2956-73	5.8	231
44	Synthesis of a cobalt(IV) ketimide with a squashed tetrahedral geometry. *Chemical Communications*, **2013**, 49, 2888-90	5.8	33

43	Enediolate-dilithium amide mixed aggregates in the enantioselective alkylation of arylacetic acids: structural studies and a stereochemical model. *Journal of the American Chemical Society*, **2013**, 135, 16853-64	16.4	35
42	Reactivity and Mössbauer spectroscopic characterization of an Fe(IV) ketimide complex and reinvestigation of an Fe(IV) norbornyl complex. *Inorganic Chemistry*, **2013**, 52, 8218-27	5.1	30
41	In pursuit of homoleptic actinide alkyl complexes. *Inorganic Chemistry*, **2013**, 52, 3556-64	5.1	34
40	Divergent Reactivity of TEMPO with MBr3 (M = B, Al). *European Journal of Inorganic Chemistry*, **2013** , 2013, 3817-3820	2.3	13
39	A rare uranyl(VI)-alkyl ate complex [Li(DME)1.5]2[UO2(CH2SiMe3)4] and its comparison with a homoleptic uranium(VI)-hexaalkyl. *Angewandte Chemie - International Edition*, **2013**, 52, 3259-63	16.4	59
38	A Rare Uranyl(VI) Alkyl Ate Complex [Li(DME)1.5]2[UO2(CH2SiMe3)4] and Its Comparison with a Homoleptic Uranium(VI) Hexaalkyl. *Angewandte Chemie*, **2013**, 125, 3341-3345	3.6	13
37	Comparison of the Reactivity of 2-Li-C6H4CH2NMe2 with MCl4 (M=Th, U): Isolation of a Thorium Aryl Complex or a Uranium Benzyne Complex. *Angewandte Chemie*, **2013**, 125, 10783-10786	3.6	8
36	Comparison of the reactivity of 2-Li-C6H4CH2NMe2 with MCl4 (M=Th, U): isolation of a thorium aryl complex or a uranium benzyne complex. *Angewandte Chemie - International Edition*, **2013**, 52, 10589-92	16.4	51
35	Synthesis and Characterization of [M2(N?CtBu2)5]? (M=Mn, Fe, Co): Metal Ketimide Complexes with Strong Metal Metal Interactions. *Angewandte Chemie*, **2012**, 124, 12944-12947	3.6	5
34	Synthesis and characterization of [M2(N=CtBu2)5]- (M=Mn, Fe, Co): metal ketimide complexes with strong metal-metal interactions. *Angewandte Chemie - International Edition*, **2012**, 51, 12772-5	16.4	21
33	Synthesis and reactivity of a uranyl-imidazolyl complex. *Chemical Communications*, **2012**, 48, 1484-6	5.8	37
32	Synthesis, molecular and electronic structure of U(V)(O)[N(SiMe3)2]3. *Inorganic Chemistry*, **2012**, 51, 1625-33	5.1	95
31	Recent Developments in Late Metal Nitrosyl Chemistry. *Comments on Inorganic Chemistry*, **2012**, 33, 207-248	3.9	21
30	Probing the 5f orbital contribution to the bonding in a U(V) ketimide complex. *Journal of the American Chemical Society*, **2012**, 134, 4931-40	16.4	59
29	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)Bu2C6H3). *Inorganic Chemistry*, **2012**, 51, 8557-66	5.1	71
28	Stabilizing high-valent metal ions with a ketimide ligand set: synthesis of Mn(N=C(t)Bu2)4. *Inorganic Chemistry*, **2011**, 50, 4660-8	5.1	33
27	Silylation of the uranyl ion using B(C6F5)3-activated Et3SiH. *Inorganic Chemistry*, **2011**, 50, 9642-9	5.1	38
26	High-valent uranium alkyls: evidence for the formation of U(VI)(CH2SiMe3)6. *Journal of the American Chemical Society*, **2011**, 133, 11732-43	16.4	79

25	Facile reduction of a uranyl(VI) ketoiminate complex to U(IV) upon oxo silylation. *Inorganic Chemistry*, **2011**, 50, 5105-12	5.1	51
24	Synthesis of a phosphorano-stabilized U(IV)-carbene via one-electron oxidation of a U(III)-ylide adduct. *Journal of the American Chemical Society*, **2011**, 133, 6894-7	16.4	83
23	Borane-mediated silylation of a metal-oxo ligand. *Inorganic Chemistry*, **2011**, 50, 4695-7	5.1	45
22	Synthesis of a nitrido-substituted analogue of the uranyl ion, [N=U=O]+. *Journal of the American Chemical Society*, **2010**, 132, 6888-9	16.4	109
21	Oxo ligand silylation in a uranyl beta-ketoiminate complex. *Journal of the American Chemical Society* , **2010**, 132, 7248-9	16.4	68
20	Synthesis and characterization of an iron(IV) ketimide complex. *Journal of the American Chemical Society*, **2010**, 132, 12814-6	16.4	46
19	Metal-ligand multiple bonding in uranium: structure and reactivity. *Dalton Transactions*, **2010**, 39, 1145-58	4.3	192
18	Isolation of a uranyl amide by "ate" complex formation. *Dalton Transactions*, **2010**, 39, 6635-7	4.3	12
17	Oxo ligand functionalization in the uranyl ion (UO22+). *Coordination Chemistry Reviews*, **2010**, 254, 197-214	13.2	250
16	Homoleptic uranium(IV) alkyl complexes: synthesis and characterization. *Journal of the American Chemical Society*, **2009**, 131, 15512-21	16.4	73
15	Reduction of pentavalent uranyl to U(IV) facilitated by oxo functionalization. *Journal of the American Chemical Society*, **2009**, 131, 17532-3	16.4	63
14	Exploring the effects of reduction or Lewis acid coordination on the U=O bond of the uranyl moiety. *Inorganic Chemistry*, **2009**, 48, 3065-72	5.1	70
13	Coordination of N-donor ligands to a uranyl(V) beta-diketiminate complex. *Inorganic Chemistry*, **2009**, 48, 11799-808	5.1	40
12	Reactivity of UI4(OEt2)2 with phenols: probing the chemistry of the U-I bond. *Dalton Transactions*, **2009**, 3681-7	4.3	18
11	Synthesis and characterization of three homoleptic alkoxides of uranium: [Li(THF)]2[UIV(OtBu)6], [Li(Et2O)][UV(OtBu)6], and UVI(OtBu)6. *Inorganic Chemistry*, **2008**, 47, 4752-61	5.1	35
10	Low-valent molecular plutonium halide complexes. *Inorganic Chemistry*, **2008**, 47, 8412-9	5.1	30
9	Reactivity of UH3 with mild oxidants. *Dalton Transactions*, **2008**, 6121-6	4.3	26
8	Synthesis, characterization, and reactivity of a uranyl beta-diketiminate complex. *Journal of the American Chemical Society*, **2008**, 130, 2005-14	16.4	89

7	Mixed-ligand uranyl(V) beta-diketiminate/beta-diketonate complexes: synthesis and characterization. *Inorganic Chemistry*, **2008**, 47, 7415-23	5.1	53
6	An entry route into non-aqueous plutonyl coordination chemistry. *Chemical Communications*, **2007**, 1659-61	5.8	28
5	Exchange of an imido ligand in bis(imido) complexes of uranium. *Journal of the American Chemical Society*, **2006**, 128, 12622-3	16.4	68
4	Synthesis and reactivity of the imido analogues of the uranyl ion. *Journal of the American Chemical Society*, **2006**, 128, 10549-59	16.4	114
3	Coupling of an aldehyde or ketone to pyridine mediated by a tungsten imido complex. *Inorganic Chemistry*, **2005**, 44, 9506-17	5.1	17
2	Synthesis of imido analogs of the uranyl ion. *Science*, **2005**, 310, 1941-3	33.3	193
1	Synthesis of Bis(trityl)iron(II) and Formation of the Iron(0)-Stabilized o,o-Isomer of Gomberg's Dimer. *Organometallics*,	3.8	1