

James M Boncella

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Scientific Aspects of Polymer Electrolyte Fuel Cell Durability and Degradation. <i>Chemical Reviews</i> , 2007, 107, 3904-3951.	47.7	2,976
2	Mechanism of Tetraalkylammonium Headgroup Degradation in Alkaline Fuel Cell Membranes. <i>Journal of Physical Chemistry C</i> , 2008, 112, 3179-3182.	3.1	329
3	Density Functional Theory Study of Degradation of Tetraalkylammonium Hydroxides. <i>Journal of Physical Chemistry C</i> , 2010, 114, 11977-11983.	3.1	216
4	Synthesis of Imido Analogs of the Uranyl Ion. <i>Science</i> , 2005, 310, 1941-1943.	12.6	211
5	Coordination of 2,2'-Bipyridyl and 1,10-Phenanthroline to Substituted Ytterbocenes: An Experimental Investigation of Spin Coupling in Lanthanide Complexes. <i>Organometallics</i> , 2002, 21, 460-472.	2.3	171
6	Fluorescent Polyacetylene Thin Film Sensor for Nitroaromatics. <i>Langmuir</i> , 2001, 17, 7452-7455.	3.5	159
7	Cation-Cation Interactions, Magnetic Communication, and Reactivity of the Pentavalent Uranium Ion [U(NtBu) ₂] ⁺ . <i>Angewandte Chemie - International Edition</i> , 2009, 48, 3795-3798.	13.8	127
8	Synthesis and Reactivity of the Imido Analogues of the Uranyl Ion. <i>Journal of the American Chemical Society</i> , 2006, 128, 10549-10559.	13.7	122
9	Hydroxide based decomposition pathways of alkyltrimethylammonium cations. <i>Journal of Membrane Science</i> , 2012, 399-400, 49-59.	8.2	121
10	Near-Infrared Electroluminescence from Lanthanide Tetraphenylporphyrin:Polystyrene Blends. <i>Advanced Materials</i> , 2003, 15, 1093-1097.	21.0	119
11	Near-infrared electroluminescence from conjugated polymer/lanthanide porphyrin blends. <i>Applied Physics Letters</i> , 2001, 79, 3770-3772.	3.3	116
12	Near-Infrared Light-Emitting Diodes (LEDs) Based on Poly(phenylene)/Yb-tris(β ² -Diketonate) Complexes. <i>Advanced Functional Materials</i> , 2003, 13, 205-210.	14.9	109
13	Synthesis of an air-stable, moisture-stable, and thermally stable tungsten(VI) oxo alkylidene complex. Precursor to an air- and moisture-stable ROMP catalyst. <i>Journal of the American Chemical Society</i> , 1991, 113, 7066-7068.	13.7	104
14	Facile Preparation and Photophysics of Near-Infrared Luminescent Lanthanide(III) Monoporphyrinate Complexes. <i>Inorganic Chemistry</i> , 2003, 42, 5023-5032.	4.0	104
15	Bis(pentamethylcyclopentadienyl)ytterbium(II) as a Lewis acid and electron-transfer ligand. Preparation and crystal structures of [Yb(Me ₅ C ₅) ₂ (μ-CO) _x Mn(CO) _{5-x}] _y (x, y = 2; x = 3, y = ∞). <i>Inorganic Chemistry</i> , 1984, 23, 432-437.	4.0	96
16	The molecular structures of bis(pentamethylcyclopentadienyl)-calcium and -ytterbium in the gas phase; two bent metallocenes. <i>Journal of Organometallic Chemistry</i> , 1986, 312, C49-C52.	1.8	96
17	Preparation of Coordination Compounds of Cp* ₂ Yb with Heterocyclic Nitrogen Bases: Examples of Antiferromagnetic Exchange Coupling across Bridging Ligands. <i>Organometallics</i> , 2002, 21, 4622-4631.	2.3	94
18	1,2-Addition of Formic or Oxalic Acid to ⁺ N{CH ₂ CH ₂ (PiPr ₂) ₂ }-Supported Mn(I) Dicarbonyl Complexes and the Manganese-Mediated Decomposition of Formic Acid. <i>Organometallics</i> , 2016, 35, 2049-2052.	2.3	90

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19	Tetrahalide Complexes of the $[U(NR)_2]^{2+}$ Ion: Synthesis, Theory, and Chlorine K-Edge X-ray Absorption Spectroscopy. <i>Journal of the American Chemical Society</i> , 2013, 135, 2279-2290.	13.7	87
20	Decomposition pathways of an alkaline fuel cell membrane material component via evolved gas analysis. <i>Journal of Thermal Analysis and Calorimetry</i> , 2008, 93, 225-229.	3.6	78
21	Synthesis and Characterization of a Neutral U(II) Arene Sandwich Complex. <i>Journal of the American Chemical Society</i> , 2018, 140, 17369-17373.	13.7	78
22	Exchange of an Imido Ligand in Bis(imido) Complexes of Uranium. <i>Journal of the American Chemical Society</i> , 2006, 128, 12622-12623.	13.7	77
23	Oxidative Addition to U(V)~U(V) Dimers: Facile Routes to Uranium(VI) Bis(imido) Complexes. <i>Inorganic Chemistry</i> , 2009, 48, 11615-11623.	4.0	77
24	Near-Infrared Photo- and Electroluminescence of Alkoxy-Substituted Poly(p-phenylene) and Nonconjugated Polymer/Lanthanide Tetraphenylporphyrin Blends. <i>Chemistry of Materials</i> , 2004, 16, 2938-2947.	6.7	75
25	Uranium(VI) Bis(imido) Chalcogenate Complexes: Synthesis and Density Functional Theory Analysis. <i>Inorganic Chemistry</i> , 2009, 48, 2693-2700.	4.0	71
26	Near-infrared organic light emitting diodes. <i>Synthetic Metals</i> , 2003, 137, 1013-1014.	3.9	68
27	Imido Exchange in Bis(imido) Uranium(VI) Complexes with Aryl Isocyanates. <i>Journal of the American Chemical Society</i> , 2008, 130, 2930-2931.	13.7	68
28	Synthesis and reactivity of bis(imido) uranium(vi) cyclopentadienyl complexes. <i>Chemical Communications</i> , 2008, , 4986.	4.1	66
29	Nucleobase Mediated, Photocatalytic Vesicle Formation from an Ester Precursor. <i>Journal of the American Chemical Society</i> , 2009, 131, 931-933.	13.7	65
30	The key to successful acyclic diene metathesis polymerization chemistry. <i>Die Makromolekulare Chemie</i> , 1990, 191, 365-374.	1.1	63
31	Prebiotically relevant mixed fatty acid vesicles support anionic solute encapsulation and photochemically catalyzed trans-membrane charge transport. <i>Chemical Science</i> , 2011, 2, 661.	7.4	62
32	Reaction of $M(C_5Me_5)_2(OEt)_2$, $M = Eu$ or Yb , with phenylacetylene; formation of mixed-valence $Yb_3(C_5Me_5)_4(\mu-C\equiv CPh)_4$ and $Eu_2(C_5Me_5)_2(\mu-C\equiv CPh)_2(tetrahydrofuran)_4$. <i>Journal of the Chemical Society Chemical Communications</i> , 1984, .	2.0	59
33	A General and Modular Synthesis of Monoimidouranium(IV) Dihalides. <i>Inorganic Chemistry</i> , 2011, 50, 4235-4237.	4.0	56
34	The synthesis of PNP-supported low-spin nitro manganese(I) carbonyl complexes. <i>Polyhedron</i> , 2016, 116, 96-104.	2.2	54
35	Stability of Cations for Anion Exchange Membrane Fuel Cells. <i>ECS Transactions</i> , 2007, 11, 1173-1180.	0.5	52
36	A Direct Route to Bis(imido)uranium(V) Halides via Metathesis of Uranium Tetrachloride. <i>Journal of the American Chemical Society</i> , 2012, 134, 9876-9878.	13.7	50

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37	Metallacyclopentane Formation: A Deactivation Pathway for a Tungsten(VI) Alkylidene Complex in Olefin Metathesis Reactions. <i>Organometallics</i> , 1998, 17, 2628-2635.	2.3	49
38	Photorelease of Primary Aliphatic and Aromatic Amines by Visible-Light-Induced Electron Transfer. <i>Organic Letters</i> , 2011, 13, 6156-6159.	4.6	49
39	Competition between π Donation and σ -C-H Agostic Interactions in Complexes of the Type $\text{Tp}^{\pm}\text{Ta}(\text{CH-t-Bu})(\text{X})(\text{Y})$ (X = Halide; Y = Halide, NR ₂ , OR; Tp^{\pm} = Hydrotris(3,5-dimethylpyrazolyl)borate). <i>Organometallics</i> , 1996, 15, 1905-1912.	2.3	48
40	Synthesis of stable tungsten(VI) imido alkylidene complexes: crystal structure of an air-stable cationic alkylidene complex. <i>Organometallics</i> , 1992, 11, 2342-2344.	2.3	47
41	Synthesis and Reactivity of Tris(pyrazolyl)borate-Stabilized Molybdenum Imido Alkylidene Complexes. <i>Organometallics</i> , 1995, 14, 1567-1577.	2.3	47
42	Facile synthesis of cationic tungsten(VI) alkylidene complexes. <i>Organometallics</i> , 1993, 12, 2814-2819.	2.3	44
43	Synthesis of Chelate-Supported Dialkyl and Alkylidene Complexes of Molybdenum(VI). <i>Organometallics</i> , 1999, 18, 4253-4260.	2.3	43
44	Synthesis of a Square Pyramidal Tungsten(VI) Alkylidene Complex with a Bis(Amide) Chelate Ligand. <i>Organometallics</i> , 1994, 13, 3378-3380.	2.3	42
45	Synthesis, characterization, and X-ray crystal structures of W(VI) alkyl complexes with chelating diamide and imido co-ligands. <i>Journal of Organometallic Chemistry</i> , 1997, 530, 59-70.	1.8	42
46	Acyclic diene metathesis polymerizations of ferrocene monomers. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1992, 13, 109-115.	1.1	41
47	Synthesis of a tris(pyrazolyl) borate-stabilized molybdenum alkylidene and its hydrolysis products. Crystal structures of $\text{TpMo}(\text{CH}_2\text{C}(\text{Me})_2\text{Ph})(\text{NAr})(\text{O})$ and $[\text{TpMo}(\text{NAr})(\text{O})]_2\text{O}$. <i>Journal of Organometallic Chemistry</i> , 1995, 485, 37-43.	1.8	40
48	Exploring the coordination modes of pyrrolyl ligands in bis(imido) uranium(vi) complexes. <i>Dalton Transactions</i> , 2010, 39, 6841.	3.3	40
49	Unusual molybdenum mediated C-N bond activation. <i>Chemical Communications</i> , 2001, , 1224-1225.	4.1	38
50	Reactions of unsaturated electrophiles with trans-(PMe ₃) ₂ Pd(Ph)(NHPh). <i>Journal of Organometallic Chemistry</i> , 1994, 465, 297-304.	1.8	37
51	Low-Valent Molecular Plutonium Halide Complexes. <i>Inorganic Chemistry</i> , 2008, 47, 8412-8419.	4.0	36
52	Ligand-Induced β -H Transfer in W(VI) Dialkyl Complexes. <i>Journal of the American Chemical Society</i> , 1997, 119, 11990-11991.	13.7	35
53	Electronic structure of bis(cyclopentadienyl) lanthanide compounds: photoelectron spectra and molecular orbital calculations. <i>Journal of the Chemical Society Chemical Communications</i> , 1986, , 405-407.	2.0	34
54	A Linear <i>trans</i> -Bis(imido) Neptunium(V) Actinyl Analog: $\text{Np}^{\text{V}}(\text{NDipp})_2(\text{t-Bu})_2\text{bipy}_2\text{Cl}$ (Dipp = 2,6-diisopropylphenyl). <i>Journal of the American Chemical Society</i> , 2015, 137, 9583-9586.	13.7	33

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55	Preparation and Reactivity of the Versatile Uranium(IV) Imido Complexes $U(NAr)Cl_2(R)_2(bpy)_2$ ($R = Me, t\text{-}Bu$) and $U(NAr)Cl_2(tppo)_3$. <i>Inorganic Chemistry</i> , 2014, 53, 9818-9826.	4.0	31
56	Manganese-Mediated Formic Acid Dehydrogenation. <i>Chemistry - A European Journal</i> , 2019, 25, 10557-10560.	3.3	31
57	Preparation of $[Yb(C_5Me_5)_2]_2[Co_3(C_5H_4R)_2(\mu_3-CO)_4]$, $R = H, Me, SiMe_3$; an example of a 47-electron transition metal fragment containing a cobalt atom with hexagonal planar co-ordination. <i>Journal of the Chemical Society Chemical Communications</i> , 1984, , 809-810.	2.0	30
58	Synthesis and Reactivity of Molybdenum(IV) Olefin Complexes Supported by a Chelating Ancillary Ligand. <i>Organometallics</i> , 2001, 20, 2032-2039.	2.3	30
59	Extending Stannyl Anion Chemistry to the Actinides: Synthesis and Characterization of a Uranium-Tin Bond. <i>Inorganic Chemistry</i> , 2016, 55, 5534-5539.	4.0	30
60	Synthesis and reactivity of η^6 -arene ruthenium anilide complexes. <i>Polyhedron</i> , 1998, 17, 725-736.	2.2	29
61	Energy landscape of self-assembled superlattices of PbSe nanocrystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 9054-9057.	7.1	29
62	Synthesis and crystal structures of hydridotris(3,5-dimethylpyrazolyl) borate tantalum(V)(=N-2,6-Pr ₂ C ₆ H ₃) (X)Cl ($X = Cl, BunO$). <i>Polyhedron</i> , 1996, 15, 2071-2078.	2.2	28
63	Synthesis and Reactivity of Molybdenum Imido Diamido Metallacyclopentenes and Metallacyclopentadienes and the Mechanism of Ethylene Exchange with Metallacyclopentane Complexes. <i>Organometallics</i> , 2006, 25, 1557-1564.	2.3	28
64	Synthesis of Ln(III) Chloride Tetraphenylporphyrin Complexes. <i>Inorganic Chemistry</i> , 2002, 41, 1704-1706.	4.0	27
65	Mechanism of the Formation of a Tungsten(VI) Alkylidene Complex Which Undergoes Reversible Metalation of an Ancillary Ligand. <i>Journal of the American Chemical Society</i> , 1995, 117, 11015-11016.	13.7	26
66	Interactions between Catalysts and Amphiphilic Structures and their Implications for a Protocell Model. <i>ChemPhysChem</i> , 2011, 12, 828-835.	2.1	26
67	The Synthesis and Reactivity of a Molybdenum (IV) Stretched-Dihydrogen Complex. <i>Journal of the American Chemical Society</i> , 2002, 124, 922-923.	13.7	24
68	Reversible 1,2-Addition of Water To Form a Nucleophilic Mn(I) Hydroxide Complex: A Thermodynamic and Reactivity Study. <i>Organometallics</i> , 2017, 36, 4179-4183.	2.3	24
69	Acyclic diene metathesis (ADMET) polymerization. Synthesis of an unsaturated polyester. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1991, 12, 413-417.	1.1	21
70	Synthesis and Reactivity of a Molybdenum(IV) η^4 -Butadiene Complex. <i>Organometallics</i> , 2001, 20, 4378-4383.	2.3	21
71	The chemistry of iron-tris(dimethylphosphinomethyl)methylsilane complexes: crystal structure of the compound $[Fe((Me)_2PCH_2)_3SiMe_3]_2(\eta^4-H)_2(\eta^4-Ci \rightarrow CH_2)]$ with a vinylidene group which is derived from ethylene. <i>Journal of Organometallic Chemistry</i> , 1987, 325, 217-231.	1.8	19
72	Uranium gets a reaction. <i>Nature</i> , 2008, 451, 250-251.	27.8	19

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73	Investigation of Nitrile Hydration Chemistry by Two Transition Metal Hydroxide Complexes: Mn ^{II} -OH and Ni ^{II} -OH Nitrile Insertion Chemistry. <i>Organometallics</i> , 2018, 37, 4675-4684.	2.3	19
74	Synthesis of d ² Tungsten Arene Complexes and Their Reaction with Diphenylacetylene. <i>Organometallics</i> , 2000, 19, 2953-2955.	2.3	18
75	Coupling of an Aldehyde or Ketone to Pyridine Mediated by a Tungsten Imido Complex. <i>Inorganic Chemistry</i> , 2005, 44, 9506-9517.	4.0	18
76	Formation of a di-iron-μ-vinylidene group from ethylene: synthesis and crystal structure of {MeSi(CH ₂ PMe ₂) ₃ }Fe(μ-C≡CH ₂)(μ-H) ₂ Fe{(PMe ₂ CH ₂) ₃ SiMe}. <i>Journal of the Chemical Society Chemical Communications</i> , 1986, , 618-619.	2.0	17
77	The synthesis of Mo(IV) arene complexes by the hydrogenation of Mo(IV) olefin complexes. <i>Chemical Communications</i> , 2001, , 247-248.	4.1	17
78	Molybdenum η^2 -imine complex formation and the reductive coupling of imines. <i>Chemical Communications</i> , 2000, , 573-574.	4.1	16
79	Uranium(VI) bis(imido) disulfonamide and dihalide complexes: Synthesis density functional theory analysis. <i>Comptes Rendus Chimie</i> , 2010, 13, 758-766.	0.5	16
80	Network Dimensionality of Selected Uranyl(VI) Coordination Polymers and Octopus-like Uranium(IV) Clusters. <i>Crystal Growth and Design</i> , 2017, 17, 5568-5582.	3.0	16
81	A Pseudotetrahedral Uranium(V) Complex. <i>Inorganic Chemistry</i> , 2018, 57, 8106-8115.	4.0	16
82	Reactivity of Silanes with (^t Bu) ² PONOP)Ruthenium Dichloride: Facile Synthesis of Chloro-silyl Ruthenium Compounds and Formic Acid Decomposition. <i>Chemistry - A European Journal</i> , 2017, 23, 13617-13622.	3.3	15
83	Progress toward new catalysts for acyclic diene metathesis (ADMET) polymerization reactions. <i>Journal of Molecular Catalysis</i> , 1992, 76, 229-237.	1.2	14
84	Synthesis and mechanistic investigations of the decomposition of η^2 -hydrogen containing W(VI) dialkyl complexes: η^2 -H elimination vs. η^2 -H abstraction. <i>Polyhedron</i> , 2004, 23, 2733-2749.	2.2	14
85	[2 + 2] cycloaddition reactions at terminal imido uranium(IV) complexes to yield isolable cycloadducts. <i>Inorganica Chimica Acta</i> , 2014, 422, 78-85.	2.4	14
86	Alkylaluminum-Induced Diamide Transfer from Group 6 Imido Diamido Complexes. <i>Organometallics</i> , 2004, 23, 929-931.	2.3	12
87	Synthesis and characterization of tantalum(V) complexes containing bis-sulfamide ligands: X-ray crystal structure of Ta[N(Me) ₂] ₃ [SO ₂ (NCMe ₃) ₂]. <i>Polyhedron</i> , 2002, 21, 1051-1055.	2.2	11
88	Synthesis, Structure, and Dynamics of Molybdenum Imido Alkyne Complexes. <i>Organometallics</i> , 2004, 23, 4070-4076.	2.3	11
89	A Tertiary Carbon-Iron Bond as an Fe ^I -Cl Synthone and the Reductive Alkylation of Diphosphine-Supported Iron(II) Chloride Complexes to Low-Valent Iron. <i>Organometallics</i> , 2016, 35, 1643-1651.	2.3	10
90	The synthesis of tungsten imido hydride complexes by the hydrogenolysis of dialkyl complexes. <i>Journal of Organometallic Chemistry</i> , 1999, 591, 8-13.	1.8	9

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91	Coordinatively Unsaturated W(IV)~Bis(pyridine) Complexes, a Reactive Source of W(IV). <i>Inorganic Chemistry</i> , 2001, 40, 5077-5082.	4.0	9
92	Oxidation of uranium(IV) mixed imido=amido complexes with PhEPh and to generate uranium(VI) bis(imido) dichalcogenolates, U(NR) ₂ (EPh) ₂ (L) ₂ . <i>Dalton Transactions</i> , 2019, 48, 10865-10873.	3.3	9
93	Synthesis and Reactivity of Molybdenum(IV) Complexes with Alkyl and Aryl Isocyanides. <i>Organometallics</i> , 2005, 24, 6310-6318.	2.3	8
94	An Allyl Uranium(IV) Sandwich Complex: Are π -Bonding Interactions Possible?. <i>Chemistry - A European Journal</i> , 2022, , e202200114.	3.3	7
95	Synthesis and reactivity of hydridotris(1-pyrazolyl)borate tungsten(VI) amido alkylidyne complexes. <i>Inorganica Chimica Acta</i> , 2003, 345, 103-112.	2.4	6
96	Phototriggered DNA Phosphoramidate Ligation in a Tandem 5'-Amine Deprotection/3'-Imidazole Activated Phosphate Coupling Reaction. <i>Bioconjugate Chemistry</i> , 2012, 23, 2014-2019.	3.6	4
97	Synthesis, Characterization, and Structure of Novel Borane- and Borate-Containing Ruthenocenes. <i>Organometallics</i> , 1997, 16, 1628-1634.	2.3	2
98	Near-infrared display materials. , 2003, , .		1