

John F Berry

List of Publications by Year in descending order

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103
papers

6,477
citations

76196

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66788

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106
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106
docs citations

106
times ranked

6098
citing authors

#	ARTICLE	IF	CITATIONS
1	Diamagnetic Corrections and Pascal's Constants. <i>Journal of Chemical Education</i> , 2008, 85, 532.	1.1	2,141
2	TERMINAL NITRIDO AND IMIDO COMPLEXES OF THE LATE TRANSITION METALS. <i>Comments on Inorganic Chemistry</i> , 2009, 30, 28-66.	3.0	266
3	Direct Spectroscopic Characterization of a Transitory Dirhodium Donor-Acceptor Carbene Complex. <i>Science</i> , 2013, 342, 351-354.	6.0	165
4	Catalyst-Controlled and Tunable, Chemoselective Silver-Catalyzed Intermolecular Nitrene Transfer: Experimental and Computational Studies. <i>Journal of the American Chemical Society</i> , 2016, 138, 14658-14667.	6.6	130
5	A Trinickel Dipyridylamido Complex with Metal ²⁺ Metal Bonding Interaction: A Prelude to Polynickel Molecular Wires and Devices?. <i>Journal of the American Chemical Society</i> , 2002, 124, 3212-3213.	6.6	126
6	Molecular and Electronic Structures by Design: Tuning Symmetrical and Unsymmetrical Linear Trichromium Chains. <i>Journal of the American Chemical Society</i> , 2004, 126, 7082-7096.	6.6	126
7	The role of three-center/four-electron bonds in superelectrophilic dirhodium carbene and nitrene catalytic intermediates. <i>Dalton Transactions</i> , 2012, 41, 700-713.	1.6	116
8	Additional Steps toward Molecular Scale Wires: Further Study of Ni ₅ /11+ Chains Embraced by Polypyridylamide Ligands. <i>Inorganic Chemistry</i> , 2003, 42, 3534-3539.	1.9	113
9	Oxidation of Ni ₃ (dpa) ₄ Cl ₂ and Cu ₃ (dpa) ₄ Cl ₂ : A Nickel ²⁺ Nickel Bonding Interaction, but No Copper ²⁺ Copper Bonds. <i>Inorganic Chemistry</i> , 2003, 42, 2418-2427.	1.9	112
10	Non-trivial behavior of palladium(ii) acetate. <i>Dalton Transactions</i> , 2005, , 1989.	1.6	111
11	Rh ₂ (II,III) Catalysts with Chelating Carboxylate and Carboxamidate Supports: Electronic Structure and Nitrene Transfer Reactivity. <i>Journal of the American Chemical Society</i> , 2016, 138, 2327-2341.	6.6	95
12	Paramagnetic Metal ²⁺ Metal Bonded Heterometallic Complexes. <i>Chemical Reviews</i> , 2020, 120, 2409-2447.	23.0	92
13	Metal ²⁺ Metal Bonds: From Fundamentals to Applications. <i>Inorganic Chemistry</i> , 2017, 56, 7577-7581.	1.9	88
14	Introducing a Metal ²⁺ Metal Multiply Bonded Group as an Axial Ligand to Iron: A Synthetic Design of a Linear Cr ²⁺ Cr ³⁺ Fe Framework. <i>Journal of the American Chemical Society</i> , 2007, 129, 12684-12685.	6.6	80
15	Aryl C-H Bond Amination by an Electrophilic Diruthenium Nitride. <i>Journal of the American Chemical Society</i> , 2010, 132, 12228-12230.	6.6	78
16	A Trinuclear EMAC-Type Molecular Wire with Redox-Active Ferrocenylacetylide Alligator Clips Attached. <i>Organometallics</i> , 2004, 23, 2503-2506.	1.1	73
17	Modeling Spin Interactions in a Cyclic Trimer and a Cuboidal Co ₄ O ₄ Core with Co(II) in Tetrahedral and Octahedral Environments. <i>Journal of the American Chemical Society</i> , 2005, 127, 4895-4902.	6.6	73
18	Oxygen Activation by Co(II) and a Redox Non-Innocent Ligand: Spectroscopic Characterization of a Radical Co(II) Superoxide Complex with Divergent Catalytic Reactivity. <i>Journal of the American Chemical Society</i> , 2016, 138, 1796-1799.	6.6	73

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19	Further Structural and Magnetic Studies of Tricopper Dipyridylamido Complexes. <i>Inorganic Chemistry</i> , 2003, 42, 377-382.	1.9	70
20	Crystals in Which Some Metal Atoms are More Equal Than Others: Inequalities From Crystal Packing and Their Spectroscopic/Magnetic Consequences. <i>Journal of the American Chemical Society</i> , 2010, 132, 14261-14272.	6.6	69
21	Making connections with molecular wires: extending tri-nickel chains with axial cyanide, dicyanamide, and phenylacetylide ligands. <i>Dalton Transactions</i> , 2003, , 3015-3021.	1.6	67
22	Delocalized Metal-Metal and Metal-Ligand Multiple Bonding in a Linear Ru ₂ μ ₂ N Unit: Elongation of a Traditionally Short Ru-μ ₂ N Bond. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 10102-10105.	7.2	66
23	Evidence for a One-Electron Mechanistic Regime in Dirhodium-Catalyzed Intermolecular C-H Amination. <i>Chemistry - A European Journal</i> , 2011, 17, 5827-5832.	1.7	65
24	Enhancing the Stability of Trinickel Molecular Wires and Switches: Ni ₃ ⁶⁺ /Ni ₃ ⁷⁺ . <i>Inorganic Chemistry</i> , 2003, 42, 3595-3601.	1.9	63
25	Aryl C-H Amination by Diruthenium Nitrides in the Solid State and in Solution at Room Temperature: Experimental and Computational Study of the Reaction Mechanism. <i>Journal of the American Chemical Society</i> , 2011, 133, 13138-13150.	6.6	61
26	An Efficient Synthesis of Acetylide/Trimetal/Acetylide Molecular Wires. <i>Inorganic Chemistry</i> , 2004, 43, 2277-2283.	1.9	59
27	Do Metal-Metal Multiply-Bonded Ligands Have a trans Influence? Structural and Magnetic Comparisons of Heterometallic Cr ₂ Cr and Mo ₂ Mo Interactions. <i>European Journal of Inorganic Chemistry</i> , 2008, 2008, 5569-5572.	1.0	59
28	Group 6 Complexes with Iron and Zinc Heterometals: Understanding the Structural, Spectroscopic, and Electrochemical Properties of a Complete Series of MM ₂ Compounds. <i>Inorganic Chemistry</i> , 2011, 50, 7650-7661.	1.9	57
29	Introducing a mixed-valent dirhodium(ii,iii) catalyst with increased stability in C-H amination. <i>Chemical Communications</i> , 2012, 48, 12097.	2.2	57
30	Assessing Metal-Metal Multiple Bonds in Cr ₂ Cr, Mo ₂ Mo, and W ₂ W Compounds and a Hypothetical U ₂ U Compound: A Quantum Chemical Study Comparing DFT and Multireference Methods. <i>Chemistry - A European Journal</i> , 2012, 18, 1737-1749.	1.7	53
31	Inverting Steric Effects: Using Attractive Noncovalent Interactions To Direct Silver-Catalyzed Nitrene Transfer. <i>Journal of the American Chemical Society</i> , 2017, 139, 17376-17386.	6.6	52
32	Extended metal atom chains (EMACs) of five chromium or cobalt atoms: Symmetrical or unsymmetrical?. <i>Dalton Transactions</i> , 2004, , 2297.	1.6	51
33	Catalyst-Controlled Nitrene Transfer by Tuning Metal:Ligand Ratios: Insight into the Mechanisms of Chemoselectivity. <i>Organometallics</i> , 2017, 36, 1649-1661.	1.1	51
34	Searching for Precursors to Metal-Metal Bonded Dipalladium Species: A Study of Pd ₂ ⁺ Complexes. <i>Inorganic Chemistry</i> , 2005, 44, 6129-6137.	1.9	49
35	A Fractional Bond Order of 1/2 in Pd ₂ ⁺ Formamidinate Species: The Value of Very High-Field EPR Spectra. <i>Journal of the American Chemical Society</i> , 2007, 129, 1393-1401.	6.6	49
36	Metal-Metal Bonding in Mixed Valence Ni ₂ ⁺ Complexes and Spectroscopic Evidence for a Ni ₂ ⁺ Species. <i>Inorganic Chemistry</i> , 2006, 45, 4396-4406.	1.9	48

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37	Two-Center/Three-Electron Sigma Half-Bonds in Main Group and Transition Metal Chemistry. <i>Accounts of Chemical Research</i> , 2016, 49, 27-34.	7.6	47
38	Dirhodium Catalysts That Bear Redox Noninnocent Chelating Dicarboxylate Ligands and Their Performance in Intra- and Intermolecular C-H Amination. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 562-568.	1.0	45
39	Increasing Solubility and Stability of Linear Tricobalt(II) Chains with depa (Diethyldipyridylamide) Ligands. <i>Inorganic Chemistry</i> , 2003, 42, 4425-4430.	1.9	43
40	Remote Effects of Axial Ligand Substitution in Heterometallic Cr ²⁺ /Cr ³⁺ -M Chains. <i>Inorganic Chemistry</i> , 2011, 50, 10592-10599.	1.9	43
41	Electrolyte Dependence of CO ₂ Electroreduction: Tetraalkylammonium Ions Are Not Electrocatalysts. <i>ACS Catalysis</i> , 2015, 5, 703-707.	5.5	40
42	Remarkable regioselectivity in the preparation of the first heterotrimetallic Mo ^{VI} -W ^{VI} -Cr chain. <i>Chemical Communications</i> , 2009, , 4357.	2.2	39
43	Spontaneous N ₂ formation by a diruthenium complex enables electrocatalytic and aerobic oxidation of ammonia. <i>Nature Chemistry</i> , 2021, 13, 1221-1227.	6.6	39
44	Axial Ligand Coordination to the C-H Amination Catalyst Rh ₂ (esp) ₂ : A Structural and Spectroscopic Study. <i>Inorganic Chemistry</i> , 2015, 54, 8817-8824.	1.9	37
45	Coordination Chemistry of 2,2'-Dipyridylamine: The Gift That Keeps on Giving. <i>Comments on Inorganic Chemistry</i> , 2016, 36, 17-37.	3.0	35
46	Comparison of Reactivity and Enantioselectivity between Chiral Bimetallic Catalysts: Bismuth-Rhodium- and Dirhodium-Catalyzed Carbene Chemistry. <i>ACS Catalysis</i> , 2018, 8, 10676-10682.	5.5	33
47	A hardwon dirhodium paddlewheel with guanidinate type (hpp) bridging ligands. <i>Dalton Transactions</i> , 2005, , 3713.	1.6	32
48	Chemically Reversible Four-Electron Oxidation and Reduction Utilizing Two Inorganic Functional Groups. <i>Journal of the American Chemical Society</i> , 2011, 133, 2856-2859.	6.6	32
49	Direct Observation of Node-to-Node Communication in Zeolitic Imidazolate Frameworks. <i>Journal of the American Chemical Society</i> , 2018, 140, 11573-11576.	6.6	32
50	Extraordinarily Large Ferromagnetic Coupling ($J \approx 150 \text{ cm}^{-1}$) by Electron Delocalization in a Heterometallic Mo ^{VI} -Ni Chain Complex. <i>Chemistry - A European Journal</i> , 2018, 24, 1494-1499.	1.7	31
51	A Synthetic Oxygen Atom Transfer Photocycle from a Diruthenium Oxyanion Complex. <i>Journal of the American Chemical Society</i> , 2016, 138, 10032-10040.	6.6	29
52	Multimetallic complexes: synthesis and applications. <i>Dalton Transactions</i> , 2017, 46, 5472-5473.	1.6	29
53	A highly oxidized Re ²⁺ species with an electron-poor bond of order 3.5. <i>Dalton Transactions</i> , 2003, , 1218-1219.	1.6	28
54	Completing the series of Group VI heterotrimetallic M ₂ Cr(dpa) ₄ Cl ₂ (M ₂ = Cr ₂ , Mo ₂ , MoW and W ₂) compounds and investigating their metal-metal interactions using density functional theory. <i>Inorganica Chimica Acta</i> , 2015, 424, 241-247.	1.2	28

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55	Rhodium Rainbow: A Colorful Laboratory Experiment Highlighting Ligand Field Effects of Dirhodium Tetraacetate. <i>Journal of Chemical Education</i> , 2019, 96, 571-576.	1.1	28
56	A Definitive Answer to a Bonding Quandary? The Role of One- π Electron Resonance Structures in the Bonding of a $\{Cu_3S_2\}^{3+}$ Core. <i>Chemistry - A European Journal</i> , 2010, 16, 2719-2724.	1.7	27
57	Synthesis, characterization and thermal properties of trimetallic $N_3CrfCrM^+N_3$ azide complexes with $M = Cr, Mn, Fe, \text{ and } Co$. <i>Dalton Transactions</i> , 2012, 41, 8153.	1.6	27
58	Synthesis and Catalytic Properties of Dirhodium Paddlewheel Complexes with Tethered, Axially Coordinating Thioether Ligands. <i>Inorganic Chemistry</i> , 2019, 58, 1728-1732.	1.9	27
59	Electrophilic aryl $C-H$ amination by dimetal nitrides: correlating electronic structure with reactivity. <i>Chemical Science</i> , 2012, 3, 3038.	3.7	26
60	Metal-metal multiple bonded intermediates in catalysis. <i>Journal of Chemical Sciences</i> , 2015, 127, 209-214.	0.7	26
61	Electronic Structure of Ni_2E_2 Complexes ($E = S, Se, Te$) and a Global Analysis of M_2E_2 Compounds: A Case for Quantized E_2^{n+} Oxidation Levels with $n = 2, 3, \text{ or } 4$. <i>Journal of the American Chemical Society</i> , 2015, 137, 4993-5011.	6.6	26
62	Expanding the family of heterobimetallic $Bi-Rh$ paddlewheel carboxylate complexes via equatorial carboxylate exchange. <i>Dalton Transactions</i> , 2016, 45, 50-55.	1.6	26
63	Chloro and Azido Diruthenium Complexes Bearing Electron-Rich N_2, N_2, N_2 -Triphenylguanidinate Ligands. <i>Inorganic Chemistry</i> , 2009, 48, 9846-9852.	1.9	24
64	Enhancing the Magnetic Anisotropy of Linear Cr(II) Chain Compounds Using Heavy Metal Substitutions. <i>Inorganic Chemistry</i> , 2016, 55, 6376-6383.	1.9	24
65	Heterometallic Multiple Bonding: Delocalized Three-Center σ and π Bonding in Chains of 4d and 5d Transition Metals. <i>Inorganic Chemistry</i> , 2014, 53, 11354-11356.	1.9	23
66	A Synthetic Cycle for Nitrogen Atom Transfer Featuring a Diruthenium Nitride Intermediate. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 3808-3811.	1.0	22
67	Heterometallic Second-Row Transition Metal Chain Compounds in Two Charge States: Syntheses, Properties, and Electronic Structures of $[Mo-Ru]^{6+/7+}$ Chains. <i>Inorganic Chemistry</i> , 2015, 54, 7660-7665.	1.9	22
68	Probing the Magnetic Anisotropy of Co(II) Complexes Featuring Redox-Active Ligands. <i>Inorganic Chemistry</i> , 2020, 59, 16178-16193.	1.9	22
69	Iron Complexes of New Pentadentate Ligands Containing the 1,4,7-Triazacyclononane-1,4-diacetate Motif. <i>Spectroscopic, Electro-, and Photochemical Studies</i> . <i>Inorganic Chemistry</i> , 2007, 46, 2208-2219.	1.9	21
70	Oxidation Chemistry of Axially Protected Mo_2 and W_2 Quadruply Bonded Compounds. <i>Inorganic Chemistry</i> , 2009, 48, 11889-11895.	1.9	19
71	Jahn-Teller distortion, ferromagnetic coupling, and electron delocalization in a high-spin $Fe-Fe$ bonded dimer. <i>Comptes Rendus Chimie</i> , 2012, 15, 192-201.	0.2	18
72	Cobalt complexes of the chelating dicarboxylate ligand Coesp^2- , a paddlewheel-type dimer and a heptanuclear coordination cluster. <i>Dalton Transactions</i> , 2018, 47, 13887-13893.	1.6	18

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73	Electronic Structure of Ru ₂ (II,II) Oxypyridinates: Synthetic, Structural, and Theoretical Insights into Axial Ligand Binding. <i>Inorganic Chemistry</i> , 2015, 54, 8571-8589.	1.9	17
74	Facile Axial Ligand Substitution in Linear Mo ₂ Ni Complexes. <i>Inorganic Chemistry</i> , 2018, 57, 9354-9363.	1.9	17
75	The first bismuth(II)-rhodium(II) oxypyridinate paddlewheel complexes: synthesis and structural characterization. <i>Journal of Coordination Chemistry</i> , 2016, 69, 1949-1956.	0.8	16
76	A molecular loop with interstitial channels in a chiral environment: exploration of the chemistry of Mo ₂₄₊ species with chiral and non-chiral dicarboxylate anions. <i>Dalton Transactions</i> , 2003, , 4297.	1.6	15
77	Exploring the Reactivity of Rh ₂ (OAc) ₄ with 2,2'-Dipyridylamine. <i>Journal of Cluster Science</i> , 2004, 15, 531-541.	1.7	15
78	Palladium Acetate Revisited: Unusual Ring-Current Effects, One-Electron Reduction, and Metal-Metal Bonding. <i>Inorganic Chemistry</i> , 2018, 57, 8046-8049.	1.9	15
79	Heterometallic Precursor with 2:2:1 Metal Ratio Requiring at Least a Pentanuclear Molecular Assembly. <i>Journal of the American Chemical Society</i> , 2020, 142, 12767-12776.	6.6	14
80	X-ray Absorption Spectroscopic, Crystallographic, Theoretical (DFT) and Chemical Evidence for a Chalcogen-Chalcogen Three-Electron Half Bond in an Unprecedented Subselenide-Se ₂ ³⁺ Ligand. <i>Chemistry - A European Journal</i> , 2012, 18, 9179-9183.	1.7	13
81	Metal-Metal Single Bonds with the Magnetic Anisotropy of Quadruple Bonds: A Systematic Series of Heterobimetallic Bismuth(II)-Rhodium(II) Formamidinate Complexes. <i>Chemistry - A European Journal</i> , 2016, 22, 18564-18571.	1.7	13
82	Electronic Structure of Anilinopyridinate-Supported Ru ₂ ⁵⁺ Paddlewheel Compounds. <i>Inorganic Chemistry</i> , 2017, 56, 14662-14670.	1.9	13
83	Library of 3D Visual Teaching Tools for the Chemistry Classroom Accessible via Sketchfab and Viewable in Augmented Reality. <i>Journal of Chemical Education</i> , 2021, 98, 3032-3037.	1.1	12
84	From Pincer to Paddlewheel: C-H and C-S Bond Activation at Bis(2-pyridylthio)methane by Palladium(II). <i>Inorganic Chemistry</i> , 2019, 58, 2270-2274.	1.9	10
85	Unsymmetrical Coordination of Bipyridine in Three-Coordinate Gold(I) Complexes. <i>Inorganic Chemistry</i> , 2020, 59, 4109-4117.	1.9	10
86	Tetrairon(II) extended metal atom chains as single-molecule magnets. <i>Dalton Transactions</i> , 2021, 50, 7571-7589.	1.6	10
87	High Magnetic Anisotropy of a Square-Planar Iron-Carbene Complex. <i>Inorganic Chemistry</i> , 2021, 60, 18575-18588.	1.9	9
88	Probing Catalyst Speciation in Pd-MPAAM-Catalyzed Enantioselective C(sp ³)-H Arylation: Catalyst Improvement via Destabilization of Off-Cycle Species. <i>ACS Catalysis</i> , 2021, 11, 11040-11048.	5.5	9
89	Formation of the N ₃ Triple Bond from Reductive Coupling of a Paramagnetic Diruthenium Nitrido Compound. <i>Journal of the American Chemical Society</i> , 2022, 144, 3259-3268.	6.6	9
90	Postsynthetic Treatment of ZIF-67 with 5-Methyltetrazole: Evolution from Pseudo-T _d to Pseudo-O _h Symmetry and Collapse of Magnetic Ordering. <i>Inorganic Chemistry</i> , 2022, 61, 6056-6062.	1.9	9

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91	Capturing the missing $[AgF_2]^-$ anion within an $Ru_2(\text{tris}(\text{pyridin-2-yl})\text{phosphine})_2$ dimeric dumbbell complex. Dalton Transactions, 2016, 45, 2386-2389.	1.6	8
92	Anilinopyridinate-supported Ru_x ($x = 5$ or 6) paddlewheel complexes with labile axial ligands. Dalton Transactions, 2017, 46, 5532-5539.	1.6	8
93	New chromium, molybdenum, and cobalt complexes of the chelating esp ligand. Polyhedron, 2019, 161, 93-103.	1.0	5
94	New Oxyppyridinate Paddlewheel Ligands for Alkane-Soluble, Sterically-Protected $Ru_2(II,III)$ and $Ru_2(II,II)$ Complexes. Inorganic Chemistry, 2018, 57, 10331-10340.	1.9	3
95	A new library of 3D models and problems for teaching crystallographic symmetry generated through <i>Blender</i> for use with 3D printers or Sketchfab. Journal of Applied Crystallography, 2022, 55, 172-179.	1.9	3
96	Synthesis and Characterization of New Os_2^{5+} and Os_2^{6+} Azido Complexes. Journal of Cluster Science, 2010, 21, 351-359.	1.7	2
97	Synthesis, characterization and solution behavior of a systematic series of pentapyridyl-supported Ru_{II} complexes: comparison to bimetallic analogs. Dalton Transactions, 2017, 46, 9118-9125.	1.6	2
98	Numerical Nuclear Second Derivatives on a Computing Grid: Enabling and Accelerating Frequency Calculations on Complex Molecular Systems. Journal of Chemical Theory and Computation, 2018, 14, 3459-3467.	2.3	2
99	A metastable Ru_{III} azido complex with metallo-Staudinger reactivity. Chemical Communications, 2020, 56, 10738-10741.	2.2	2
100	Electronic Structure of Ru_2^{6+} Complexes with Electron-Rich Anilinopyridinate Ligands. Inorganic Chemistry, 2022, 61, 3443-3457.	1.9	2
101	Antiferromagnetic Exchange and Metal-Metal Bonding in Roussin's Black Sulfur and Selenium Salts. Inorganic Chemistry, 2021, 60, 16241-16255.	1.9	1
102	Structural diversity in copper(I) iodide complexes with 6-thioxopiperidin-2-one, piperidine-2,6-dithione and isoindoline-1,3-dithione ligands. Acta Crystallographica Section E: Crystallographic Communications, 2020, 76, 1336-1344.	0.2	1
103	Frontispiece: Extraordinarily Large Ferromagnetic Coupling ($\approx 150 \text{ cm}^{-1}$) by Electron Delocalization in a Heterometallic $Mo\text{-}Ni$ Chain Complex. Chemistry - A European Journal, 2018, 24, .	1.7	0