A S Borovik

List of Publications by Year
in descending order

90 papers	5,750 citations	81900 39 h-index	74163 75 g-index
92 all docs	92 docs citations	92 times ranked	3954 citing authors

#	ARTICLE	IF	CITATIONS
1	O2 Activation by Nonheme Iron Complexes: A Monomeric Fe(III)-Oxo Complex Derived From O2. Science, 2000, 289, 938-941.	12.6	423
2	Bioinspired Hydrogen Bond Motifs in Ligand Design:â€‰ The Role of Noncovalent Interactions in Metal Ion Mediated Activation of Dioxygen. Accounts of Chemical Research, 2005, 38, 54-61.	15.6	377
3	Role of metalâ€“oxo complexes in the cleavage of Câ€“H bonds. Chemical Society Reviews, 2011, 40, 1870.	38.1	274
4	Role of the Secondary Coordination Sphere in Metal-Mediated Dioxygen Activation. Inorganic Chemistry, 2010, 49, 3646-3660.	4.0	261
5	Molecular Designs for Controlling the Local Environments around Metal Ions. Accounts of Chemical Research, 2015, 48, 2407-2414.	15.6	250
6	Formation, Structure, and EPR Detection of a High Spin Fe^{IV}â€"Oxo Species Derived from Either an Fe^{III}â€"Oxo or Fe^{III}â€"OH Complex. Journal of the American Chemical Society, 2010, 132, 12188-12190.	13.7	218
7	Dichotomous Hydrogen Atom Transfer vs Proton-Coupled Electron Transfer During Activation of Xâ€“H Bonds (X = C, N, O) by Nonheme Ironâ€“Oxo Complexes of Variable Basicity. Journal of the American Chemical Society, 2013, 135, 17090-17104.	13.7	216
8	Utilization of Hydrogen Bonds To Stabilize Mâˆ'O(H) Units:â€‰ Synthesis and Properties of Monomeric Iron and Manganese Complexes with Terminal Oxo and Hydroxo Ligands. Journal of the American Chemical Society, 2004, 126, 2556-2567.	13.7	173
9	Câˆ'H Bond Cleavage with Reductants: Re-Investigating the Reactivity of Monomeric Mn^{III/IV}âˆ'Oxo Complexes and the Role of Oxo Ligand Basicity. Journal of the American Chemical Society, 2009, 131, 2762-2763.	13.7	171
10	Models for iron-oxo proteins. Structures and properties of FeIIFeIII, ZnIIFeIII, and FeIIGaIII complexes with (.mu.-phenoxo)bis(.mu.-carboxylato)dimetal cores. Journal of the American Chemical Society, 1989, 111, 6183-6195.	13.7	167
11	The Effects of Redox-Inactive Metal Ions on the Activation of Dioxygen: Isolation and Characterization of a Heterobimetallic Complex Containing a Mn^{III}â€“(Î¼-OH)â€“Ca^{II} Core. Journal of the American Chemical Society, 2011, 133, 9258-9261.	13.7	164
12	Monomeric MnIII/IIand FeIII/IIComplexes with Terminal Hydroxo and Oxo Ligands:Â Probing Reactivity via Oâˆ'H Bond Dissociation Energies. Journal of the American Chemical Society, 2003, 125, 13234-13242.	13.7	159
13	Preparation and Properties of a Monomeric MnIVâˆ'Oxo Complex. Journal of the American Chemical Society, 2006, 128, 8728-8729.	13.7	138
14	Catalytic Reduction of Dioxygen to Water with a Monomeric Manganese Complex at Room Temperature. Journal of the American Chemical Society, 2011, 133, 5810-5817.	13.7	138
15	High-spin Mnâ€“oxo complexes and their relevance to the oxygen-evolving complex within photosystem II. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5319-5324.	7.1	123
16	Preparation and Properties of a Monomeric High-Spin Mn^Vâ€“Oxo Complex. Journal of the American Chemical Society, 2012, 134, 1996-1999.	13.7	115
17	A Monomeric Mn^{III}âˆ'Peroxo Complex Derived Directly from Dioxygen. Journal of the American Chemical Society, 2008, 130, 8888-8889.	13.7	100
18	Hydrogen Bonding in Metal Oxo Complexes:Â Synthesis and Structure of a Monomeric Manganese(III)âˆ'Oxo Complex and Its Hydroxo Analogue. Journal of the American Chemical Society, 2000, 122, 1836-1837.	13.7	95

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19	Hydrogen-Bonding Cavities about Metal Ions:â€‰ Synthesis, Structure, and Physical Properties for a Series of Monomeric Mâˆ'OH Complexes Derived from Water. Inorganic Chemistry, 2001, 40, 4733-4741.	4.0	88
20	Preparation of Iron Amido Complexes via Putative Fe(IV) Imido Intermediates. Journal of the American Chemical Society, 2005, 127, 11596-11597.	13.7	88
21	Heterobimetallic complexes with M^{III}-(Î¼-OH)-M^{II}cores (M^{III}= Fe, Mn,) Tj ETQq1 1 0.784314 rgB 717-726.	7.4	86
22	Lessons from Nature: A Bio-Inspired Approach to Molecular Design. Biochemistry, 2015, 54, 4167-4180.	2.5	86
23	The effects of hydrogen bonds on metal-mediated O2 activation and related processes. Chemical Communications, 2008, , 6095.	4.1	83
24	Assembly and Properties of Heterobimetallic Co^{II/III}/Ca^{II} Complexes with Aquo and Hydroxo Ligands. Journal of the American Chemical Society, 2012, 134, 17526-17535.	13.7	83
25	Isolation of Monomeric MnIII/IIâˆ'OH and MnIIIâˆ'O Complexes from Water:Â Evaluation of Oâˆ'H Bond Dissociation Energies. Journal of the American Chemical Society, 2002, 124, 1136-1137.	13.7	81
26	A Modular Approach toward Regulating the Secondary Coordination Sphere of Metal Ions:Â Differential Dioxygen Activation Assisted by Intramolecular Hydrogen Bonds. Journal of the American Chemical Society, 2006, 128, 15476-15489.	13.7	78
27	Design, Synthesis, and Characterization of Templated Metal Sites in Porous Organic Hosts:â€‰ Application to Reversible Dioxygen Binding. Journal of the American Chemical Society, 2000, 122, 8946-8955.	13.7	77
28	Structure and Magnetic Properties of Trigonal Bipyramidal Iron Nitrosyl Complexes. Inorganic Chemistry, 1999, 38, 3110-3115.	4.0	75
29	Synthesis, Structure, and Physical Properties for a Series of Monomeric Iron(III) Hydroxo Complexes with Varying Hydrogen-Bond Networks. Inorganic Chemistry, 2008, 47, 5780-5786.	4.0	68
30	Electron Paramagnetic Resonance and MÃ¶ssbauer Spectroscopy and Density Functional Theory Analysis of a High-Spin Fe^{IV}â€“Oxo Complex. Journal of the American Chemical Society, 2012, 134, 9775-9784.	13.7	67
31	Structure and Physical Properties of Trigonal Monopyramidal Iron(II), Cobalt(II), Nickel(II), and Zinc(II) Complexes. Inorganic Chemistry, 1998, 37, 1527-1532.	4.0	56
32	C3-Symmetric Chiral Amidate Complexes:Â Effects of Ligand Binding on Cavity Structure. Inorganic Chemistry, 1997, 36, 3210-3211.	4.0	54
33	Effects of Noncovalent Interactions on High-Spin Fe(IV)â€“Oxido Complexes. Journal of the American Chemical Society, 2020, 142, 11804-11817.	13.7	53
34	Lessons from nature: unraveling biological CH bond activation. Current Opinion in Chemical Biology, 2009, 13, 114-118.	6.1	50
35	Characterization of Monomeric Mn^{II/III/IV}â€“Hydroxo Complexes from X- and Q-Band Dual Mode Electron Paramagnetic Resonance (EPR) Spectroscopy. Inorganic Chemistry, 2013, 52, 12568-12575.	4.0	49
36	Synthesis and Structure of a Trigonal Monopyramidal Fe(II) Complex and Its Paramagnetic Carbon Monoxide Derivative. Journal of the American Chemical Society, 1996, 118, 6084-6085.	13.7	47

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37	Reactivity of an Fe^{IV}-Oxo Complex with Protons and Oxidants. Journal of the American Chemical Society, 2016, 138, 13143-13146.	13.7	45
38	Peroxide Activation Regulated by Hydrogen Bonds within Artificial Cu Proteins. Journal of the American Chemical Society, 2017, 139, 17289-17292.	13.7	45
39	Synthesis and structure of a MnIII(OH) complex generated from dioxygen. Chemical Communications, 1997, , 1967.	4.1	41
40	Heterobimetallic complexes with (.mu.-phenoxo)bis(.mu.-carboxylato) cores. Journal of the American Chemical Society, 1988, 110, 1986-1988.	13.7	38
41	Artificial Metalloproteins Containing Co₄O₄ Cubane Active Sites. Journal of the American Chemical Society, 2018, 140, 2739-2742.	13.7	38
42	Preparation and properties of an Mn^{IV}â€“hydroxide complex: proton and electron transfer at a mononuclear manganese site and its relationship to the oxygen evolving complex within photosystem II. Chemical Science, 2014, 5, 3064-3071.	7.4	36
43	Câ€“H Bond Cleavage by Bioinspired Nonheme Metal Complexes. Inorganic Chemistry, 2021, 60, 13759-13783.	4.0	36
44	Acetonitrile Hydration and Ethyl Acetate Hydrolysis by Pyrazolate-Bridged Cobalt(II) Dimers Containing Hydrogen-Bond Donors. Inorganic Chemistry, 2007, 46, 10120-10132.	4.0	35
45	Regulating the Basicity of Metalâ€“Oxido Complexes with a Single Hydrogen Bond and Its Effect on Câ€“H Bond Cleavage. Journal of the American Chemical Society, 2019, 141, 11142-11150.	13.7	34
46	Unsymmetrical Bimetallic Complexes with M^{II}â€“(Î¼-OH)â€“M^{III} Cores (M^{II}M^{III} = Fe^{II}Fe^{III}, Mn^{II}Fe^{III},) Tj ETQq0 0 0 rgBT /Overlock 2013, 52, 10229-10231.	4.0	31
47	C2-Symmetric ligands containing hydrogen bond donors: synthesis and properties of Cu(ii) complexes of 2,6-bis[N,Nâ€²-(2-carboxamidophenyl)carbamoyl]pyridine. Dalton Transactions RSC, 2002, , 1714-1720.	2.3	28
48	Semiempirical method for examining asynchronicity in metalâ€“oxido-mediated Câ€“H bond activation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	28
49	Iron(II) Complexes Supported by Sulfonamido Tripodal Ligands: Endogenous versus Exogenous Substrate Oxidation. Inorganic Chemistry, 2014, 53, 11029-11035.	4.0	27
50	Hydrogen-bonding cavities about metal ions: synthesis, structure, and physical properties for a series of monomeric M-OH complexes derived from water. Inorganic Chemistry, 2001, 40, 4733-41.	4.0	25
51	Chalcogens as Terminal Ligands to Iron:Â Synthesis and Structure of Complexes with FeIIIâˆ’S and FeIIIâˆ’Se Motifs. Journal of the American Chemical Society, 2004, 126, 6522-6523.	13.7	24
52	Immobilization of a Europium Salen Complex within Porous Organic Hosts:â€‰ Modulation of Luminescence Properties in Different Chemical Environments. Chemistry of Materials, 2003, 15, 3490-3495.	6.7	23
53	Modular Artificial Cupredoxins. Journal of the American Chemical Society, 2016, 138, 9073-9076.	13.7	22
54	Metal Oxo Cation Receptors: Multimode Coordination to the Dioxoosmium(VI) Cation. Angewandte Chemie International Edition in English, 1995, 34, 1359-1362.	4.4	21

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55	Structural Diversity in Metal Complexes with a Dinucleating Ligand Containing Carboxyamidopyridyl Groups. Inorganic Chemistry, 2011, 50, 7922-7924.	4.0	20
56	Synthesis, structure and reactivity of Fe^{II/III}â€“NH₃ complexes bearing a tripodal sulfonamido ligand. Chemical Communications, 2014, 50, 2515-2517.	4.1	20
57	Metal complexes with varying intramolecular hydrogen bonding networks. Polyhedron, 2013, 52, 261-267.	2.2	18
58	Correlation between Active Center Structure and Enhanced Dioxygen Binding in Co(salen) Nanoparticles: Characterization by In Situ Infrared, Raman, and X-ray Absorption Spectroscopies. Journal of Physical Chemistry C, 2008, 112, 12272-12281.	3.1	17
59	Preparation and structures of dinuclear complexes containing MIIâ€“OH centers. Chemical Communications, 2012, 48, 2546.	4.1	17
60	Models for Unsymmetrical Active Sites in Metalloproteins: Structural, Redox, and Magnetic Properties of Bimetallic Complexes with M^{II}-(Î¼-OH)-Fe^{III}Cores. Inorganic Chemistry, 2017, 56, 14118-14128.	4.0	17
61	Coordination chemistry within a protein host: regulation of the secondary coordination sphere. Chemical Communications, 2018, 54, 4413-4416.	4.1	17
62	Development of bio-inspired chelates with hydrogen bond donors: synthesis and structure of monomeric metal acetate complexes with intramolecular hydrogen bonds. Dalton Transactions, 2003, , 1986-1992.	3.3	16
63	Modulating the Primary and Secondary Coordination Spheres within a Series of Co^{II}â€”OH Complexes. Inorganic Chemistry, 2017, 56, 1112-1120.	4.0	16
64	Manganeseâ€“Hydroxido Complexes Supported by a Urea/Phosphinic Amide Tripodal Ligand. Inorganic Chemistry, 2018, 57, 13341-13350.	4.0	14
65	The Use of Non-Covalent Interactions in the Assembly of Metal/Organic Supramolecular Arrays. Comments on Inorganic Chemistry, 2002, 23, 45-78.	5.2	13
66	Sulfonamido tripods: Tuning redox potentials via ligand modifications. Polyhedron, 2015, 85, 777-782.	2.2	12
67	Terminal NiIIâˆ’OH/âˆ’OH2 complexes in trigonal bipyramidal geometries derived from H2O. Polyhedron, 2017, 125, 179-185.	2.2	11
68	Probing Hydrogen Bonding Interactions to Ironâ€Oxido/Hydroxido Units by ⁵⁷Fe Nuclear Resonance Vibrational Spectroscopy. Angewandte Chemie - International Edition, 2018, 57, 16010-16014.	13.8	11
69	Modification of immobilized metal complexes toward the design and synthesis of functional materials for nitric oxide delivery. Journal of Polymer Science Part A, 2006, 44, 2282-2292.	2.3	10
70	Mononuclear complexes of a tridentate redox-active ligand with sulfonamido groups: structure, properties, and reactivity. Chemical Science, 2018, 9, 6540-6547.	7.4	10
71	Artificial Iron Proteins: Modeling the Active Sites in Non-Heme Dioxygenases. Inorganic Chemistry, 2020, 59, 6000-6009.	4.0	10
72	Artificial Metalloproteins with Dinuclear Ironâ€“Hydroxido Centers. Journal of the American Chemical Society, 2021, 143, 2384-2393.	13.7	10

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73	Artificial Metalloproteins: At the Interface between Biology and Chemistry. Jacs Au, 2022, 2, 1252-1265.	7.9	10
74	Nearâ€stoichiometric O₂ binding on metal centers in Co(salen) nanoparticles. AICHE Journal, 2009, 55, 1040-1045.	3.6	7
75	Preparation of monolithic superparamagnetic nanoparticleâ€“polymer composites using a polymerizable acetylacetonate and magnetite nanoparticles. Polymer Chemistry, 2012, 3, 2852.	3.9	7
76	Preparation and structural properties of InIIIâ€“OH complexes. Polyhedron, 2013, 58, 65-70.	2.2	7
77	Water Oxidation Using a Cobalt Monolayer Prepared by Underpotential Deposition. Langmuir, 2013, 29, 14728-14732.	3.5	7
78	Bioinspired Di-Fe Complexes: Correlating Structure and Proton Transfer over Four Oxidation States. Journal of the American Chemical Society, 2022, 144, 4559-4571.	13.7	7
79	Surface grafting of cobalt complexes on polymeric supports: Evidence for site isolation and applications to reversible dioxygen binding. Journal of Polymer Science Part A, 2001, 39, 888-897.	2.3	6
80	Investigation of ironâ€“ammine and amido complexes within a <i>C</i>₃-symmetrical phosphinic amido tripodal ligand. Dalton Transactions, 2021, 50, 11197-11205.	3.3	6
81	Designing Metal Complexes in Porous Organic Hosts. ACS Symposium Series, 1998, , 159-169.	0.5	5
82	Nickel(II) complexes stabilized by bis[N-(6-pivalamido-2-pyridylmethyl)]benzylamine: Synthesis and characterization of complexes stabilized by a hydrogen bonding network. Inorganica Chimica Acta, 2010, 363, 2728-2733.	2.4	5
83	Modular bimetallic complexes with a sulfonamido-based ligand. Dalton Transactions, 2018, 47, 12362-12372.	3.3	4
84	Rezeptoren fÃ¼r Oxometallâ€Kationen: Koordination an das Dioxoosmium(<scp>VI</scp>)â€Kation Ã¼ber verschiedenartige bindende Wechselwirkungen. Angewandte Chemie, 1995, 107, 1473-1476.	2.0	3
85	Stabilizing a NiII-aqua complex via intramolecular hydrogen bonds: Synthesis, structure, and redox properties. Inorganica Chimica Acta, 2019, 495, 118960.	2.4	3
86	Stepwise assembly of heterobimetallic complexes: synthesis, structure, and physical properties. Dalton Transactions, 2021, 50, 8111-8119.	3.3	3
87	Analysis of the Puzzling Exchange-Coupling Constants in a Series of Heterobimetallic Complexes. Inorganic Chemistry, 2019, 58, 9150-9160.	4.0	2
88	Green Methods for Processing and Utilizing Metal Complexes. ACS Symposium Series, 2009, , 274-289.	0.5	1
89	Probing Hydrogen Bonding Interactions to Ironâ€Oxido/Hydroxido Units by 57 Fe Nuclear Resonance Vibrational Spectroscopy. Angewandte Chemie, 2018, 130, 16242-16246.	2.0	0
90	RÃ¼cktitelbild: Probing Hydrogen Bonding Interactions to Ironâ€Oxido/Hydroxido Units by ⁵⁷Fe Nuclear Resonance Vibrational Spectroscopy (Angew. Chem. 49/2018). Angewandte Chemie, 2018, 130, 16470-16470.	2.0	0