FrÃ©dÃ©ric Banse

List of Publications by Year in descending order

45 papers	1,774 citations	236925 25 h-index	265206 42 g-index
46 all docs	46 docs citations	46 times ranked	1292 citing authors

#	Article	IF	Citations
1	Protonâ€•and Reductantâ€Assisted Dioxygen Activation by a Nonheme Iron(II) Complex to Form an Oxoiron(IV) Intermediate. Angewandte Chemie - International Edition, 2008, 47, 7064-7067.	13.8	155
2	Characterization and Properties of Non-Heme Iron Peroxo Complexes. Structure and Bonding, 2000, , 145-177.	1.0	119
3	Structures of Fe(II) Complexes withN,N,Nâ€˜-Tris(2-pyridylmethyl)ethane-1,2-diamine Type Ligands. Bleomycin-like DNA Cleavage and Enhancement by an Alkylammonium Substituent on the Nâ€˜ Atom of the Ligand. Inorganic Chemistry, 1999, 38, 1085-1092.	4.0	116
4	New Example of a Non-Heme Mononuclear Iron(IV) Oxo Complex. Spectroscopic Data and Oxidation Activity. Inorganic Chemistry, 2005, 44, 9592-9596.	4.0	109
5	Hydroxylation of Aromatics with the Help of a Nonâ€Haem FeOOH: A Mechanistic Study under Singleâ€Turnover and Catalytic Conditions. Chemistry - A European Journal, 2012, 18, 2715-2724.	3.3	94
6	FeIII-Hydroperoxo and Peroxo Complexes with Aminopyridyl Ligands and the Resonance Raman Spectroscopic Identification of the Feâˆ'O and Oâˆ'O Stretching Modes. European Journal of Inorganic Chemistry, 2000, 2000, 1627-1633.	2.0	93
7	Spectroscopic Characterization of an FeIV Intermediate Generated by Reaction of XOâˆ' (X = Cl, Br) with an FeII Complex Bearing a Pentadentate Non-Porphyrinic Ligandâˆ' Hydroxylation and Epoxidation Activity. European Journal of Inorganic Chemistry, 2004, 2004, 301-308.	2.0	89
8	Differences and Comparisons of the Properties and Reactivities of Iron(III)â€"hydroperoxo Complexes with Saturated Coordination Sphere. Chemistry - A European Journal, 2015, 21, 1221-1236.	3.3	67
9	The Electronic Structure of Non-Heme Iron(III)âˆ'Hydroperoxo and Iron(III)âˆ'Peroxo Model Complexes Studied by MÃ¶ssbauer and Electron Paramagnetic Resonance Spectroscopies. Inorganic Chemistry, 2001, 40, 6538-6540.	4.0	64
10	Fe(II) and Fe(III) Mononuclear Complexes with a Pentadentate Ligand Built on the 1,3-Diaminopropane Unit. Structures and Spectroscopic and Electrochemical Properties. Reaction with H2O2. Inorganic Chemistry, 2003, 42, 2470-2477.	4.0	56
11	Selective Formation of an Fe^{IV}O or an Fe^{III}OOH Intermediate From Iron(II) and H₂O₂: Controlled Heterolytic versus Homolytic Oxygenâ€"Oxygen Bond Cleavage by the Second Coordination Sphere. Angewandte Chemie - International Edition, 2019, 58, 854-858.	13.8	54
12	Non-heme iron polyazadentate complexes as catalysts for oxidations by H2O2: particular efficiency in aromatic hydroxylations and beneficial effects of a reducing agent. Journal of Molecular Catalysis A, 2004, 215, 81-87.	4.8	51
13	Non-heme iron polyazadentate complexes as catalysts for aromatic hydroxylation by H2O2: Particular efficiency of tetrakis(2-pyridylmethyl)ethylenediamineâ€"iron(II) complexes. Journal of Molecular Catalysis A, 2008, 287, 115-120.	4.8	51
14	Iron Coordination Chemistry with New Ligands Containing Triazole and Pyridine Moieties. Comparison of the Coordination Ability of the N-Donors. Inorganic Chemistry, 2013, 52, 691-700.	4.0	46
15	Characterization of a Nonheme Mononuclear Peroxoiron(III) Intermediate by UV/Vis and EPR Spectroscopy and Mass Spectrometry. European Journal of Inorganic Chemistry, 1999, 1999, 993-996.	2.0	44
16	Mononuclear iron complexes relevant to nonheme iron oxygenases. Synthesis, characterizations and reactivity of Fe-Oxo and Fe-Peroxo intermediates. Dalton Transactions, 2009, , 9587.	3.3	44
17	Activation of dioxygen by a mononuclear non-heme iron complex: characterization of a FeIII(OOH) intermediate. Dalton Transactions, 2010, 39, 1630-1634.	3.3	40
18	Preparation and Characterization of a Microcrystalline Nonâ€Heme Fe^{III}(OOH) Complex Powder: EPR Reinvestigation of Fe^{III}(OOH) Complexesâ€"Improvement of the Perturbation Equations for the <i>g</i> Tensor of Lowâ€Spin Fe^{III}. Chemistry - A European Journal, 2008, 14, 3182-3188.	3.3	38

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19	Fe(II) Mononuclear Complexes with a New Aminopyridyl Ligand Bearing a Pivaloylamido Arm. Preparation and Spectroscopic Characterizations of a FeIII-Hydroperoxo Complex with Oxygen and Nitrogen Donors. Inorganic Chemistry, 2007, 46, 1709-1717.	4.0	37
20	Iron Complexes Containing the Ligand N,N-Bis(6-methyl-2-pyridylmethyl)-N,N-bis(2-pyridylmethyl)ethane-1,2-diamine: Structural, Spectroscopic, and Electrochemical Studies, Reactivity with Hydrogen Peroxide and the Formation of a Low-Spin Feâˆ’OOH Complex. European Journal of Inorganic Chemistry, 2003, 2003, 2529-2535.	2.0	36
21	Electrochemical study of a nonheme Fe(<scp>ii</scp>) complex in the presence of dioxygen. Insights into the reductive activation of O₂ at Fe(<scp>ii</scp>) centers. Chemical Science, 2015, 6, 639-647.	7.4	35
22	Bio-inspired iron catalysts for degradation of aromatic pollutants and alkane hydroxylation. Comptes Rendus Chimie, 2002, 5, 99-109.	0.5	32
23	Characterization and Subsequent Reactivity of an Fe-Peroxo Porphyrin Generated by Electrochemical Reductive Activation of O₂. Inorganic Chemistry, 2016, 55, 12204-12210.	4.0	31
24	Selective Formation of an Fe^{IV}O or an Fe^{III}OOH Intermediate From Iron(II) and H₂O₂: Controlled Heterolytic versus Homolytic Oxygenâ€“Oxygen Bond Cleavage by the Second Coordination Sphere. Angewandte Chemie, 2019, 131, 864-868.	2.0	25
25	Successive light-induced two electron transfers in a Ruâ€“Fe supramolecular assembly: from Ruâ€“Fe(<scp>ii</scp>)â€“OH₂ to Ruâ€“Fe(<scp>iv</scp>)â€“oxo. Chemical Science, 2015, 6, 2323-2327.	7.4	24
26	An Artificial Enzyme Made by Covalent Grafting of an Fe^{II} Complex into Î²â€Lactoglobulin: Molecular Chemistry, Oxidation Catalysis, and Reactionâ€Intermediate Monitoring in a Protein. Chemistry - A European Journal, 2015, 21, 12188-12193.	3.3	20
27	A Reversible Electron Relay to Exclude Sacrificial Electron Donors in the Photocatalytic Oxygen Atom Transfer Reaction with O₂ in Water. Angewandte Chemie - International Edition, 2019, 58, 16023-16027.	13.8	20
28	Oxidation catalysis via visible-light water activation of a [Ru(bpy)₃]²⁺ chromophore BSAâ€“metallocorrole couple. Dalton Transactions, 2016, 45, 706-710.	3.3	18
29	Arene activation by a nonheme iron(III)â€“hydroperoxo complex: pathways leading to phenol and ketone products. Journal of Biological Inorganic Chemistry, 2016, 21, 453-462.	2.6	16
30	Directing the solid-state photochromic and luminescent behaviors of spiromolecules with Dawson and Anderson polyoxometalate units. Journal of Materials Chemistry C, 2020, 8, 637-649.	5.5	16
31	Hydroxylation of Aromatics by H 2 O 2 Catalyzed by Mononuclear Nonâ€heme Iron Complexes: Role of Triazole Hemilability in Substrateâ€Induced Bifurcation of the H 2 O 2 Activation Mechanism. Chemistry - A European Journal, 2020, 26, 659-668.	3.3	15
32	Base-controlled mechanistic divergence between iron(<scp>iv</scp>)-oxo and iron(<scp>iii</scp>)-hydroperoxo in the H₂O₂ activation by a nonheme iron(<scp>ii</scp>) complex. Dalton Transactions, 2019, 48, 17045-17051.	3.3	14
33	Bioinspired molecular catalysts for homogenous electrochemical activation of dioxygen. Current Opinion in Electrochemistry, 2019, 15, 118-124.	4.8	12
34	Sequential installation of Fe(<scp>ii</scp>) complexes in MOFs: towards the design of solvatochromic porous solids. Journal of Materials Chemistry C, 2020, 8, 16826-16833.	5.5	11
35	Confinement of a bioinspired nonheme Fe(ii) complex in 2D hexagonal mesoporous silica with metal site isolation. Dalton Transactions, 2013, 42, 11607.	3.3	9
36	Nonâ€Heme Fe^{II} Diastereomeric Complexes Bearing a Hexadentate Ligand: Unexpected Consequences for the Spin State and Catalytic Oxidation Properties. Chemistry - A European Journal, 2019, 25, 12405-12411.	3.3	7

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37	Imidazolidine Ring Cleavage upon Complexation with First-Row Transition Metals. European Journal of Inorganic Chemistry, 2017, 2017, 3884-3891.	2.0	6
38	A Tale of Two Complexes: Electroâ€Assisted Oxidation of Thioanisole by an â€œO₂ Activator/Oxidizing Speciesâ€• Tandem System of Nonâ€Heme Iron Complexes. Chemistry - A European Journal, 2022, 28, .	3.3	6
39	Fe^{III} and Fe^{II} Phosphasalen Complexes: Synthesis, Characterization, and Catalytic Application for 2â€Naphthol Oxidative Coupling. Chemistry - A European Journal, 2020, 26, 13634-13643.	3.3	5
40	Modulating alkene reactivity from oxygenation to halogenation <i>via</i> electrochemical O₂ activation by Mn porphyrin. Chemical Communications, 2021, 57, 1198-1201.	4.1	5
41	Mimicking the Regulation Step of Feâ€Monooxygenases: Allosteric Modulation of Fe^{IV}â€Oxo Formation by Guest Binding in a Dinuclear Zn^{II}â€“Fe^{II} Calix[6]areneâ€Based Funnel Complex. Chemistry - A European Journal, 2017, 23, 2894-2906.	3.3	4
42	Synthesis and Characterization of Iron(II) Complexes with a BPMENâ€Type Ligand Bearing Ï€â€Accepting Nitro Groups. European Journal of Inorganic Chemistry, 2017, 2017, 3057-3063.	2.0	4
43	A Reversible Electron Relay to Exclude Sacrificial Electron Donors in the Photocatalytic Oxygen Atom Transfer Reaction with O 2 in Water. Angewandte Chemie, 2019, 131, 16169-16173.	2.0	3
44	Second-sphere effects on H₂O₂ activation by non-heme Fe^{II} complexes: role of a phenol group in the [H₂O₂]-dependent accumulation of Fe^{IV}O <i>vs.</i> Fe^{III}OOH. Chemical Science, 2021, 12, 15691-15699.	7.4	2
45	Self-assembled monolayer formation of a (N₅)Fe(<scp>ii</scp>) complex on gold electrodes: electrochemical properties and coordination chemistry on a surface. Dalton Transactions, 2016, 45, 19053-19061.	3.3	1