FrÃ©dÃ©ric-Georges Fontaine

List of Publications by Year
in descending order

93 papers	4,442 citations	101384 36 h-index	110170 64 g-index
103 all docs	103 docs citations	103 times ranked	3767 citing authors

#	Article	IF	Citations
1	Performance of catalytic cycloaddition of CO2 to styrene oxide in three-phase co-current (micro)fixed-bed and monolith reactors. Journal of CO2 Utilization, 2022, 60, 101977.	3.3	7
2	Insights into the Solubility of Carbon Dioxide in Grafted Mesoporous Silica for the Catalytic Synthesis of Cyclic Carbonates by Nanoconfinement. ACS Applied Materials & Interfaces, 2021, 13, 27019-27028.	4.0	9
3	Comparative Studies of Digestion Techniques for the Dissolution of Neodymium-Based Magnets. Metals, 2021, 11, 1149.	1.0	6
4	Boric acid as a precatalyst for BH₃-catalyzed hydroboration. RSC Advances, 2021, 11, 31941-31949.	1.7	13
5	FLP-Mediated Câ€“H-Activation. Molecular Catalysis, 2021, , 113-166.	1.3	8
6	Boron Recycling in the Metal-Free Transfer Câ€“H Borylation of Terminal Alkynes and Heteroarenes. ACS Catalysis, 2020, 10, 11046-11056.	5.5	17
7	Understanding Selectivity of Mesoporous Silica-Grafted Diglycolamide-Type Ligands in the Solid-Phase Extraction of Rare Earths. ACS Applied Materials & Interfaces, 2020, 12, 57003-57016.	4.0	34
8	Isodesmic Câ€“H Borylation: Perspectives and Proof of Concept of Transfer Borylation Catalysis. Journal of the American Chemical Society, 2019, 141, 12305-12311.	6.6	56
9	Size-Selective Separation of Rare Earth Elements Using Functionalized Mesoporous Silica Materials. ACS Applied Materials & Interfaces, 2019, 11, 23681-23691.	4.0	41
10	Revisiting the reduction of indoles by hydroboranes: A combined experimental and computational study. Tetrahedron, 2019, 75, 2118-2127.	1.0	16
11	Alkylammoniotrifluoroborate functionalized polystyrenes: polymeric pre-catalysts for the metal-free borylation of heteroarenes. Dalton Transactions, 2019, 48, 4846-4856.	1.6	24
12	Selective separation and preconcentration of Th(<scp>iv</scp>) using organo-functionalized, hierarchically porous silica monoliths. Journal of Materials Chemistry A, 2019, 7, 289-302.	5.2	33
13	Ambiphilic Molecules: From Organometallic Curiosity to Metal-Free Catalysts. Accounts of Chemical Research, 2018, 51, 454-464.	7.6	99
14	Designed Synthesis of Mesoporous Solid-Supported Lewis Acidâ€“Base Pairs and Their CO₂ Adsorption Behaviors. ACS Applied Materials & Interfaces, 2018, 10, 13199-13210.	4.0	25
15	Practical and Scalable Synthesis of Borylated Heterocycles Using Bench-Stable Precursors of Metal-Free Lewis Pair Catalysts. Organic Process Research and Development, 2018, 22, 1489-1499.	1.3	31
16	Recent Advances in the Separation of Rare Earth Elements Using Mesoporous Hybrid Materials. Chemical Record, 2018, 18, 1261-1276.	2.9	73
17	Metal-free borylative dearomatization of indoles: exploring the divergent reactivity of aminoborane Câ€“H borylation catalysts. Chemical Science, 2018, 9, 5057-5063.	3.7	40
18	Design principles in frustrated Lewis pair catalysis for the functionalization of carbon dioxide and heterocycles. Coordination Chemistry Reviews, 2017, 334, 124-135.	9.5	92

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19	Frustrated Lewis Pair Mediated Csp³â^'H Activation. Chemistry - A European Journal, 2017, 23, 3567-3571.	1.7	34
20	Carbon Dioxide Oversolubility in Nanoconfined Liquids for the Synthesis of Cyclic Carbonates. ChemCatChem, 2017, 9, 1886-1890.	1.8	25
21	Lewis acidity quantification and catalytic activity of Ti, Zr and Al-supported mesoporous silica. Dalton Transactions, 2017, 46, 3864-3876.	1.6	38
22	Direct heteroarylation polymerization: guidelines for defect-free conjugated polymers. Chemical Science, 2017, 8, 3913-3925.	3.7	70
23	Metal-free reduction of CO2. Current Opinion in Green and Sustainable Chemistry, 2017, 3, 28-32.	3.2	51
24	Highly Efficient and Selective Recovery of Rare Earth Elements Using Mesoporous Silica Functionalized by Preorganized Chelating Ligands. ACS Applied Materials & Interfaces, 2017, 9, 38584-38593.	4.0	72
25	Metal-Free Borylation of Heteroarenes Using Ambiphilic Aminoboranes: On the Importance of Sterics in Frustrated Lewis Pair Câ€“H Bond Activation. Journal of the American Chemical Society, 2017, 139, 14714-14723.	6.6	101
26	On the concept of frustrated Lewis pairs. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20170004.	1.6	92
27	Frustrated Lewis Pair Catalyzed Sâ€“H Bond Borylation. Organometallics, 2017, 36, 2870-2876.	1.1	18
28	Spontaneous Reduction of a Hydroborane To Generate a Bâ^'B Single Bond by the Use of a Lewis Pair. Angewandte Chemie, 2016, 128, 12914-12918.	1.6	23
29	Spontaneous Reduction of a Hydroborane To Generate a Bâ^'B Single Bond by the Use of a Lewis Pair. Angewandte Chemie - International Edition, 2016, 55, 12722-12726.	7.2	47
30	Mono-boratabenzene and -phospholyl zirconocene(IV) derivatives: Towards mixed heterocycles zirconocene complexes. Polyhedron, 2016, 108, 15-22.	1.0	6
31	Bench-stable frustrated Lewis pair chemistry: fluoroborate salts as precatalysts for the Câ€“H borylation of heteroarenes. Chemical Communications, 2016, 52, 5387-5390.	2.2	84
32	Phosphidoboratabenzeneâ€“rhodium(i) complexes as precatalysts for the hydrogenation of alkenes at room temperature and atmospheric pressure. Dalton Transactions, 2016, 45, 2130-2137.	1.6	12
33	Reversible hydrogen activation by a bulky haloborane based FLP system. Dalton Transactions, 2016, 45, 6129-6135.	1.6	10
34	Ambiphilic Frustrated Lewis Pair Exhibiting High Robustness and Reversible Water Activation: Towards the Metal-Free Hydrogenation of Carbon Dioxide. Molecules, 2015, 20, 11902-11914.	1.7	20
35	Selective recovery of rare earth elements using chelating ligands grafted on mesoporous surfaces. RSC Advances, 2015, 5, 103782-103789.	1.7	47
36	Metal-free catalytic C-H bond activation and borylation of heteroarenes. Science, 2015, 349, 513-516.	6.0	379

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37	Intramolecular B/N frustrated Lewis pairs and the hydrogenation of carbon dioxide. Chemical Communications, 2015, 51, 9797-9800.	2.2	123
38	Synthesis of Carboxylate Cp*Zr(IV) Species: Toward the Formation of Novel Metallocavitands. Inorganic Chemistry, 2015, 54, 5547-5555.	1.9	7
39	Phosphazenes: efficient organocatalysts for the catalytic hydrosilylation of carbon dioxide. Chemical Communications, 2015, 51, 6858-6861.	2.2	69
40	Hydroboration of Carbon Dioxide Using Ambiphilic Phosphineâ€“Borane Catalysts: On the Role of the Formaldehyde Adduct. ACS Catalysis, 2015, 5, 2513-2520.	5.5	112
41	Transitionâ€Metalâ€Free Catalytic Reduction of Carbon Dioxide. Chemistry - A European Journal, 2014, 20, 2990-2996.	1.7	126
42	Lewis base activation of boraneâ€“dimethylsulfide into strongly reducing ion pairs for the transformation of carbon dioxide to methoxyboranes. Chemical Communications, 2014, 50, 11362-11365.	2.2	58
43	Synthesis and Reactivity of Novel Mesityl Boratabenzene Ligands and Their Coordination to Transition Metals. Organometallics, 2014, 33, 3173-3181.	1.1	21
44	Generation of Group VI Piano-Stool and Triple-Decker Complexes from [(IMes)2PtH(Cl-boratabenzene)] Species. European Journal of Inorganic Chemistry, 2014, 2014, 5698-5702.	1.0	10
45	Insights into the Formation of Borabenzene Adducts via Ligand Exchange Reactions and TMSCl Elimination from Boracyclohexadiene Precursors. Organometallics, 2014, 33, 3596-3606.	1.1	24
46	Reducing CO₂ to Methanol Using Frustrated Lewis Pairs: On the Mechanism of Phosphineâ€“Borane-Mediated Hydroboration of CO₂. Journal of the American Chemical Society, 2014, 136, 10708-10717.	6.6	204
47	Synthesis and complexation study of new ExTTF-based hosts for fullerenes. Organic and Biomolecular Chemistry, 2014, 12, 4117.	1.5	5
48	Synthesis of tetrathiafulvalene-containing zirconium(IV) pincers and metallocavitands for hosting fullerenes. Inorganica Chimica Acta, 2014, 422, 235-242.	1.2	5
49	Zirconium(IV) Metallocavitands As Blue-Emitting Materials. Inorganic Chemistry, 2014, 53, 2883-2891.	1.9	19
50	Addition of boranes to (E)-(Î·5-C5H5)2Zr(CH=CHPh)Cl. Open Chemistry, 2013, 11, 811-816.	1.0	0
51	Indium@silica coreâ€“shell nanoparticles as plasmonic enhancers of molecular luminescence in the UV region. Chemical Communications, 2013, 49, 9299.	2.2	37
52	A Tris(triphenylphosphine)aluminum Ambiphilic Precatalyst for the Reduction of Carbon Dioxide with Catecholborane. Organometallics, 2013, 32, 6804-6811.	1.1	112
53	A Highly Active Phosphineâ€“Borane Organocatalyst for the Reduction of CO₂ to Methanol Using Hydroboranes. Journal of the American Chemical Society, 2013, 135, 9326-9329.	6.6	304
54	Confinement of the Grubbs catalyst in alkene-functionalized mesoporous silica. Microporous and Mesoporous Materials, 2013, 175, 170-177.	2.2	15

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55	Homogeneous asymmetric transfer hydrogenation of ketones using a ruthenium catalyst anchored on chitosan: natural chirality at work. New Journal of Chemistry, 2012, 36, 1548.	1.4	27
56	A Route to Bimodal Micro-Mesoporous Metalâ€“Organic Frameworks Nanocrystals. Crystal Growth and Design, 2012, 12, 1008-1013.	1.4	81
57	Ambiphilic molecules for trapping reactive intermediates: interrupted Nazarov reaction of allenyl vinyl ketones with Me2PCH2AlMe2. Chemical Communications, 2012, 48, 11250.	2.2	20
58	Coordination of a Di-tert-butylphosphidoboratabenzene Ligand to Electronically Unsaturated Group 10 Transition Metals. Organometallics, 2012, 31, 6428-6437.	1.1	24
59	Rational Synthesis of Metalâ€“Organic Framework Nanocubes and Nanosheets Using Selective Modulators and Their Morphology-Dependent Gas-Sorption Properties. Crystal Growth and Design, 2012, 12, 3091-3095.	1.4	131
60	On the Interaction of Acetone with Electrophilic Metallocavitands Having Extended Cavities. Inorganic Chemistry, 2012, 51, 10384-10393.	1.9	8
61	On the Interaction of Phosphines with High Surface Area Mesoporous Silica. Journal of Physical Chemistry C, 2012, 116, 25919-25927.	1.5	15
62	New dimeric and supramolecular mixed ligand Palladium(II) dithiocarbamates as potent DNA binders. Polyhedron, 2012, 39, 1-8.	1.0	20
63	Urease inhibition and anti-leishmanial assay of substituted benzoylguanidines and their copper(ii) complexes. Dalton Transactions, 2011, 40, 9202.	1.6	22
64	Reactivity of a Cl-boratabenzene Pt(ii) complex with Lewis bases: generation of the kinetically favoured Cl-boratabenzene anion. Dalton Transactions, 2011, 40, 12439.	1.6	13
65	Reactivity of Lewis pairs (R2PCH2AlMe2)2 with carbon dioxide. Chemical Communications, 2011, 47, 11131.	2.2	140
66	Substantiating the Influence of Pore Surface Functionalities on the Stability of Grubbs Catalyst in Mesoporous SBAâ€15 Silica. Chemistry - A European Journal, 2011, 17, 4254-4265.	1.7	35
67	Reactivity of a functionalized trisamido ligand with Zr(NMe2)4 and GaMe3. Journal of Organometallic Chemistry, 2011, 696, 2211-2216.	0.8	1
68	MSâ€TOF Study of the Formation of Thiolatoâ€Bridged Rhodium Oligomers. European Journal of Inorganic Chemistry, 2010, 2010, 2158-2164.	1.0	8
69	Synthesis of a 1-boratabenzene-(2,3,4,5-tetramethylphosphole): towards a planar monophosphole. Chemical Communications, 2010, 46, 6816.	2.2	30
70	Aluminium complexes bearing functionalized trisamido ligands and their reactivity in the polymerization of Îµ-caprolactone and rac-lactide. Dalton Transactions, 2010, 39, 5688.	1.6	43
71	[(IMes)₂Pt(H)(ClBC₅H₄SiMe₃)]: a Borabenzeneâ€“Platinum Adduct with an Unusual Ptâ€Clâ€B Interaction. Angewandte Chemie - International Edition, 2009, 48, 6695-6698.	7.2	40
72	Structural Study of Acidic Metallocavitands and Characterization of their Interactions with Lewis Bases. Inorganic Chemistry, 2009, 48, 1699-1710.	1.9	16

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73	Synthesis and solid-state characterization of platinum complexes with hexadentate amino- and iminophosphine ligands. Dalton Transactions, 2009, , 7701.	1.6	25
74	(Î·⁴-Cycloocta-1,5-diene)diiodidoplatinum(II). Acta Crystallographica Section E: Structure Reports Online, 2009, 65, m1028-m1028.	0.2	1
75	Coordination Chemistry of Neutral (L_n)â€“Z Amphoteric and Ambiphilic Ligands. European Journal of Inorganic Chemistry, 2008, 2008, 5439-5454.	1.0	176
76	Coordination of a Bifunctional Ligand to a Rhodium(III) Dimethyl Complex:â€‰ Lewis Acidity Enhancement by Chelation. Organometallics, 2007, 26, 3807-3815.	1.1	52
77	Synthesis and Characterization of Tantalum(V) Boronate Clusters: Multifunctional Lewis Acid Cages for Binding Guests. Angewandte Chemie - International Edition, 2007, 46, 4979-4982.	7.2	28
78	rac-2,2â€²-Bis(diphenylphosphinoyl)-1,1â€²-binaphthyl. Acta Crystallographica Section E: Structure Reports Online, 2007, 63, o2087-o2088.	0.2	1
79	(Diphenyl sulfoxide)dimethyl(Î·5-pentamethylcyclopentadienyl)rhodium(III). Acta Crystallographica Section E: Structure Reports Online, 2007, 63, m2253-m2253.	0.2	0
80	6-Bromo-N-methylnaphthalen-2-amine. Acta Crystallographica Section E: Structure Reports Online, 2007, 63, o4338-o4338.	0.2	0
81	Chloridobis(Î·5-cyclopentadienyl)(4-methoxyphenethyl)zirconium(IV). Acta Crystallographica Section E: Structure Reports Online, 2007, 63, m2790-m2790.	0.2	0
82	Synthesis and structural characterization of bis- and tris(3,5-dimethylpyrazolyl)methane complexes of Ni(NO3)2. Inorganica Chimica Acta, 2006, 359, 2592-2598.	1.2	12
83	Synthesis, characterization and reactivity of tetramethylphospholyl complexes of scandium. Journal of Organometallic Chemistry, 2006, 691, 4595-4600.	0.8	13
84	Bis[tris(3,5-dimethylpyrazolyl)methane]nickel(II) dibromide. Acta Crystallographica Section E: Structure Reports Online, 2005, 61, m784-m786.	0.2	3
85	trans-Dibromotetra(3-tert-butylpyrazole-Î²N)nickel(II). Acta Crystallographica Section E: Structure Reports Online, 2005, 61, m846-m848.	0.2	1
86	[Bis[tris(3,5-dimethylpyrazolyl)methane]nickel(II)][tetrachloronickelate(II)]â€“methanolâ€“water (1/1/1). Acta Crystallographica Section E: Structure Reports Online, 2005, 61, m904-m906.	0.2	3
87	Control of Selectivity in the Hydromethylation of Olefins via Ligand Modification in Scandocene Catalysts. Organometallics, 2005, 24, 4340-4342.	1.1	45
88	Me2AlCH2PMe2: A New, Bifunctional Cocatalyst for the Ni(II)-Catalyzed Oligomerization of PhSiH3. Journal of the American Chemical Society, 2004, 126, 8786-8794.	6.6	113
89	Polyhydrido(silylene)osmium and Silyl(dinitrogen)ruthenium Products Through Redistribution of Phenylsilane with Osmium and Ruthenium Pincer Complexes. Angewandte Chemie - International Edition, 2003, 42, 216-219.	7.2	66
90	Hydrosilylation of alkenes and ketones catalyzed by nickel(II) indenyl complexes. Canadian Journal of Chemistry, 2003, 81, 1299-1306.	0.6	78

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91	Dehydrogenative Oligomerization of PhSiH3Catalyzed by (1-Me-Indenyl)Ni(PR3)(Me). Organometallics, 2002, 21, 401-408.	1.1	59
92	Solid State Structures and Phosphine Exchange Reactions of (1-Me-Indenyl)(PR3)Niâˆ'Cl. Organometallics, 2001, 20, 5156-5161.	1.1	23
93	Nickel indenyl complexes as precatalysts for dehydropolymerization of phenylsilane. Chemical Communications, 1998, , 1253-1254.	2.2	55