

Ferenc JoÃ³

List of Publications by Year in descending order

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92
papers

4,380
citations

117625

34
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110387

64
g-index

101
all docs

101
docs citations

101
times ranked

3498
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances in the homogeneous hydrogenation of carbon dioxide. Coordination Chemistry Reviews, 2004, 248, 2425-2442.	18.8	676
2	Breakthroughs in Hydrogen Storageâ€”Formic Acid as a Sustainable Storage Material for Hydrogen. ChemSusChem, 2008, 1, 805-808.	6.8	489
3	Homogeneous Hydrogenation. Catalysis By Metal Complexes, 1994, , .	0.6	176
4	Aqueous Biphasic Hydrogenations. Accounts of Chemical Research, 2002, 35, 738-745.	15.6	165
5	Homogeneous hydrogenation of carbon dioxide and bicarbonate in aqueous solution catalyzed by water-soluble ruthenium(II) phosphine complexes. Applied Catalysis A: General, 2003, 255, 59-67.	4.3	161
6	Organometallic catalysis in aqueous solutions: the biphasic transfer hydrogenation of aldehydes catalyzed by water-soluble phosphine complexes of ruthenium, rhodium and iridium. Journal of Molecular Catalysis, 1990, 58, 151-163.	1.2	152
7	A Charge/Discharge Device for Chemical Hydrogen Storage and Generation. Angewandte Chemie - International Edition, 2011, 50, 10433-10435.	13.8	136
8	Catalysis by water-soluble phosphine complexes of transition metal ions in aqueous and two-phase media. Journal of Molecular Catalysis, 1980, 8, 369-383.	1.2	135
9	Homogeneous hydrogenation of aqueous hydrogen carbonate to formate under exceedingly mild conditionsâ€”a novel possibility of carbon dioxide activationâ€. Chemical Communications, 1999, , 971-972.	4.1	113
10	Novel Sulfonated N-Heterocyclic Carbene Gold(I) Complexes: Homogeneous Gold Catalysis for the Hydration of Terminal Alkynes in Aqueous Media. Organometallics, 2010, 29, 2484-2490.	2.3	113
11	Trimerisation of the Cationic Fragments [(Î-ring)M(Aa)]+ ((Î-ring) M=(Î-5-C5Me5)Rh, (Î-5-C5Me5)Ir,) Tj ETQq1 1 0.784314 rgBT /Overlo Solution Studies and Catalytic Reactions of the Trimers [{(Î-ring)M(Aa)}3](BF4)3. Chemistry - A European Journal, 1999, 5, 1544-1564.	3.3	97
12	Solution pH: A Selectivity Switch in Aqueous Organometallic Catalysisâ€”Hydrogenation of Unsaturated Aldehydes Catalyzed by Sulfonatophenylphosphane-Ru Complexes. Angewandte Chemie - International Edition, 1998, 37, 969-970.	13.8	86
13	Enantioselective hydride transfer hydrogenation of ketones catalyzed by [(Î-6-p-cymene)Ru(amino) Tj ETQq1 1 0.784314 rgBT /Overlo Chemistry, 2000, 593-594, 299-306.	1.8	77
14	The effects of pH on the molecular distribution of water soluble ruthenium(II) hydrides and its consequences on the selectivity of the catalytic hydrogenation of unsaturated aldehydes. Catalysis Today, 1998, 42, 441-448.	4.4	74
15	Water-soluble gold(I)â€”NHC complexes of sulfonated IMes and SIMes and their catalytic activity in hydration of alkynes. Journal of Molecular Catalysis A, 2011, 340, 1-8.	4.8	66
16	(Meta - Sulfonatophenyl) Diphenylphosphine, Sodium Salt and its Complexes with Rhodium(I), Ruthenium(II), Iridium(I). Inorganic Syntheses, 2007, , 1-8.	0.3	62
17	Hydrogenation of aqueous mixtures of calcium carbonate and carbon dioxide using a water-soluble rhodium(I)â€”tertiary phosphine complex catalyst. Journal of Molecular Catalysis A, 2004, 224, 87-91.	4.8	57
18	Free formic acid by hydrogenation of carbon dioxide in sodium formate solutions. Catalysis Communications, 2011, 14, 74-76.	3.3	56

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19	Redox isomerisation of allylic alcohols catalysed by water-soluble ruthenium complexes in aqueous systems. <i>Journal of Organometallic Chemistry</i> , 2008, 693, 468-474.	1.8	55
20	Aqueous organometallic catalysis. Isotope exchange reactions in H ₂ and D ₂ systems catalyzed by water-soluble Rh- and Ru-phosphine complexes. <i>Green Chemistry</i> , 2003, 5, 213.	9.0	54
21	Molecular catalysis in liquid multiphase systems. <i>Topics in Catalysis</i> , 1998, 5, 113-124.	2.8	48
22	Redox isomerization of allylic alcohols in aqueous organic biphasic systems catalyzed by water-soluble Ru(II)-N-heterocyclic carbene complexes. <i>Catalysis Communications</i> , 2006, 7, 783-786.	3.3	47
23	Complex hydrogenation/oxidation reactions of the water-soluble hydrogenation catalyst palladium di(sodium alizarinmonosulfonate) and details of homogeneous hydrogenation of lipids in isolated biomembranes and living cells. <i>Analytical Biochemistry</i> , 1991, 194, 34-40.	2.4	46
24	The Effect of pH on the Reactions of Catalytically Important RhI Complexes in Aqueous Solution: Reaction of [RhCl(tppps) ₃] and trans-[RhCl(CO)(tppps) ₂] with Hydrogen (TPPMS=mono-sulfonated) <i>Journal of Organometallic Chemistry</i> , 2003, 663, 1-10.	0.3	10
25	Modulation of membrane fluidity in living protoplasts of <i>Nicotiana glauca</i> by catalytic hydrogenation. <i>FEBS Journal</i> , 1985, 146, 241-244.	0.2	43
26	Homogeneous hydrogenation of aqueous hydrogen carbonate to formate under mild conditions with water soluble rhodium(I)- and ruthenium(II)-phosphine catalysts. <i>Applied Organometallic Chemistry</i> , 2000, 14, 857-859.	3.5	43
27	Hydrogenation and Redox Isomerization of Allylic Alcohols Catalyzed by a New Water-Soluble Pd tetrahydropyridine Complex. <i>Organometallics</i> , 2013, 32, 4391-4401.	2.3	40
28	Selective modification of cytoplasmic membrane fluidity by catalytic hydrogenation provides evidence on its primary role in chilling susceptibility of the blue-green alga, <i>Anacystis nidulans</i> . <i>FEBS Letters</i> , 1985, 191, 200-204.	2.8	38
29	Catalysis of redox isomerization of allylic alcohols by [RuClCp(mPTA) ₂](OSO ₂ CF ₃) ₂ and [RuCp(mPTA) ₂ (OH ₂ -P=O)](OSO ₂ CF ₃) ₃ ·(H ₂ O)(C ₄ H ₁₀ O) _{0.5} . Unusual influence of the pH and interaction of phosphate with catalyst on the reaction rate. <i>Journal of Molecular Catalysis A</i> , 2010, 326, 15-20.	4.8	38
30	New Water-Soluble Iridium(N-Heterocyclic Carbene)Tertiary Phosphine Mixed-Ligand Complexes as Catalysts of Hydrogenation and Redox Isomerization. <i>Organometallics</i> , 2014, 33, 6330-6340.	2.3	38
31	Water-Soluble Iridium(NHC)Phosphine Complexes as Catalysts for Chemical Hydrogen Batteries Based on Formate. <i>ChemSusChem</i> , 2015, 8, 3036-3038.	6.8	38
32	Poly-N-heterocyclic carbene complexes with applications in aqueous media. <i>Coordination Chemistry Reviews</i> , 2019, 400, 213038.	18.8	38
33	Efficient and selective hydration of nitriles to amides in aqueous systems with Ru(II)-phosphatropine catalysts. <i>Tetrahedron Letters</i> , 2014, 55, 3615-3617.	1.4	37
34	Dramatic Pressure Effects on the Selectivity of the Aqueous/Organic Biphasic Hydrogenation of trans-Cinnamaldehyde Catalyzed by Water-Soluble Ru(II)-Tertiary Phosphane Complexes. <i>Advanced Synthesis and Catalysis</i> , 2003, 345, 172-174.	4.3	35
35	Unusual 1-Alkyne Dimerization/Hydrogenation Sequences Catalyzed by [Ir(H) ₂ (NCCH ₃) ₃ (P-i-Pr ₃)]BF ₄ : Evidence for Homogeneous-Like Mechanism in Imidazolium Salts. <i>Advanced Synthesis and Catalysis</i> , 2003, 345, 280-288.	4.3	32
36	The hydrogenation of phospholipid-bound unsaturated fatty acids by a homogeneous, water-soluble, palladium catalyst. <i>Lipids and Lipid Metabolism</i> , 1987, 921, 167-174.	2.6	28

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37	Water-Soluble Triisopropylphosphine Complexes of Ruthenium(II): Synthesis, Equilibria, and Acetonitrile Hydration. <i>Organometallics</i> , 2009, 28, 561-566.	2.3	25
38	Stereoselective homogeneous catalytic hydrogenation of disubstituted alkynes in aqueous-organic biphasic media. <i>Reaction Kinetics and Catalysis Letters</i> , 2005, 85, 355-360.	0.6	24
39	Unexpectedly fast catalytic transfer hydrogenation of aldehydes by formate in 2-propanol/water mixtures under mild conditions. <i>Catalysis Today</i> , 2015, 247, 14-19.	4.4	24
40	Selective catalytic hydrogenations in a microfluidics-based high throughput flow reactor on ion-exchange supported transition metal complexes: A modular approach to the heterogenization of soluble complex catalysts. <i>Catalysis Communications</i> , 2007, 8, 442-446.	3.3	23
41	Pd-Tetrahydroxalanate Type Complexes as Catalysts for Sonogashira Couplings in Water: Efficient Greening of the Procedure. <i>ChemSusChem</i> , 2014, 7, 2230-2239.	6.8	21
42	Classical and non-classical phosphine-Ru-hydrides in aqueous solutions: many, various, and useful. <i>Dalton Transactions</i> , 2013, 42, 521-529.	3.3	20
43	Organic Solvent-Free, Pd(II)-Salan Complex-Catalyzed Synthesis of Biaryls via Suzuki-Miyaura Cross-Coupling in Water and Air. <i>Journal of Organic Chemistry</i> , 2018, 83, 15486-15492.	3.2	20
44	Action of a homogeneous hydrogenation catalyst on living <i>Tetrahymena mimbres</i> cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1990, 1023, 230-238.	2.6	19
45	Transfer Hydrogenation of Carbonyl Compounds and Alkenes Catalyzed by Ruthenium(II)-N-Heterocycle Carbene Complexes. <i>Collection of Czechoslovak Chemical Communications</i> , 2007, 72, 1037-1045.	1.0	19
46	Evaluation of catalytic activity of [RuClCp(dmoPTA)(PPh ₃)](OSO ₂ CF ₃) in the isomerization of allylic alcohols in water (dmoPTA=3,7-dimethyl-1,3,7-triaza-5-phosphabicyclo[3.3.1]nonane). <i>Journal of Molecular Catalysis A</i> , 2016, 411, 27-33.	4.8	18
47	Lipid Saturation Induced Microviscosity Increase Has No Effect on the Reducibility of Flash-Oxidized Cytochrome <i>c</i> in Pea Thylakoids. <i>Plant Physiology</i> , 1988, 86, 335-337.	4.8	14
48	Formation and Solid State Structures of Highly Crystalline Guanidinium Salts of Sulfonated Tertiary Phosphanes. <i>Advanced Synthesis and Catalysis</i> , 2002, 344, 278-282.	4.3	14
49	The Role of Water in the Stereoselective Hydrogenation of 1,2-Diphenylacetylene Catalyzed by the Water-Soluble [RuCl ₂ (mtpms) ₂]. <i>European Journal of Inorganic Chemistry</i> , 2007, 2007, 2879-2889.	2.0	14
50	Iridium(I) NHC-phosphine complex-catalyzed hydrogen generation and storage in aqueous formate/bicarbonate solutions using a flow reactor - Effective response to changes in hydrogen demand. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28527-28532.	7.1	14
51	Strong Solvent Effects on Catalytic Transfer Hydrogenation of Ketones with [Ir(cod)(NHC)(PR ₃)] Catalysts in 2-Propanol-Water Mixtures. <i>Catalysts</i> , 2020, 10, 17.	3.5	13
52	Selective Hydration of Nitriles to Corresponding Amides in Air with Rh(I)-N-Heterocyclic Complex Catalysts. <i>Catalysts</i> , 2020, 10, 125.	3.5	13
53	A novel carbohydrate labeling method utilizing transfer hydrogenation-mediated reductive amination. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2017, 142, 324-327.	2.8	12
54	Synthesis and catalytic applications of Ru(II)-phosphaurotropine complexes with the use of simple water-soluble Ru(II)-precursors. <i>Coordination Chemistry Reviews</i> , 2021, 438, 213871.	18.8	12

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55	A Breakthrough in Sustainable Production of Formate Salts: Combined Catalytic Methanol Dehydrogenation and Bicarbonate Hydrogenation. <i>ChemCatChem</i> , 2014, 6, 3306-3308.	3.7	11
56	Dehalogenation of organic halides in aqueous media by hydrogen transfer from formate catalyzed by water-soluble Ru(II)-N-heterocyclic carbene complexes. <i>Journal of Molecular Catalysis A</i> , 2016, 425, 103-109.	4.8	11
57	Chemoselective hydration of glycosyl cyanides to C-glycosyl formamides using ruthenium complexes in aqueous media. <i>Tetrahedron Letters</i> , 2015, 56, 5995-5998.	1.4	10
58	Facile synthesis of [Ru(η -2-O ₂ CO)(pta)(η -6-p-cymene)], an outstandingly active Ru(II) half-sandwich complex for redox isomerization of allylic alcohols. <i>Inorganica Chimica Acta</i> , 2017, 455, 514-520.	2.4	9
59	A Simple and Efficient Procedure for Rh(I)- and Ir(I)-complex Catalyzed <i>Para</i> -hydrogenation of Alkynes and Alkenes in Aqueous Media Resulting in Strong PHIP Effects. <i>ChemCatChem</i> , 2019, 11, 3000-3003.	3.7	9
60	Stirring or milling? First synthesis of Rh(I)-(di-N-heterocyclic carbene) complexes both in solution and in a ball mill. <i>Journal of Organometallic Chemistry</i> , 2020, 918, 121308.	1.8	9
61	Effect of 2-Propanol on the Transfer Hydrogenation of Aldehydes by Aqueous Sodium Formate using a Rhodium(I)-sulfonated Triphenylphosphine Catalyst. <i>Chimia</i> , 2015, 69, 339.	0.6	8
62	Coordination chemistry and catalytic applications of Pd(II)-, and Ni(II)-sulfosalan complexes in aqueous media. <i>Journal of Inorganic Biochemistry</i> , 2020, 203, 110945.	3.5	8
63	Palladium (II)-Salan Complexes as Catalysts for Suzuki-Miyaura C-C Cross-Coupling in Water and Air. Effect of the Various Bridging Units within the Diamine Moieties on the Catalytic Performance. <i>Molecules</i> , 2020, 25, 3993.	3.8	8
64	Copper(II) Complexes of Sulfonated Salan Ligands: Thermodynamic and Spectroscopic Features and Applications for Catalysis of the Henry Reaction. <i>Inorganic Chemistry</i> , 2021, 60, 11259-11272.	4.0	8
65	The Mechanisms of Homogeneous Hydrogenation. <i>Catalysis By Metal Complexes</i> , 1994, , 5-85.	0.6	8
66	Hydrogenation of biological membranes using a polymer-anchored colloidal palladium catalyst. <i>Reaction Kinetics and Catalysis Letters</i> , 1992, 48, 619-625.	0.6	7
67	Synthesis and structure of stable water-soluble phosphonium alkanoate zwitterions derived from 1,3,5-triaza-7-phosphaadamantane. <i>Structural Chemistry</i> , 2015, 26, 1323-1334.	2.0	7
68	Anion effects in the formation of the active catalyst in the Ruhrchemie \hat{A} - Rh \hat{A} 'ne-Poulenc aqueous biphasic hydroformylation process. Are there any?. <i>Canadian Journal of Chemistry</i> , 2005, 83, 1033-1036.	1.1	6
69	New application of an anchored Ru(II)-N-heterocyclic carbene complex. <i>Catalysis Letters</i> , 2007, 115, 163-168.	2.6	6
70	Catalytic racemization of secondary alcohols with new (arene)Ru(II)-NHC and (arene)Ru(II)-NHC-tertiary phosphine complexes. <i>Molecular Catalysis</i> , 2018, 445, 248-256.	2.0	6
71	Hydrogenation of $\hat{1},\hat{1}^2$ -unsaturated aldehydes in aqueous media with a water-soluble Pd(II)-sulfosalan complex catalyst. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2019, 126, 439-451.	1.7	6
72	Aqueous Organometallic Chemistry. Synthesis and Solution Equilibria of Trisodium Carbonylchlorotris[3-(diphenylphosphino- $\hat{1}^p$)benzenesulfonato]hydridoruthenate(3 \hat{a} "") ([RuH(Cl)(CO){m-(Ph ₂ P) $\hat{1}^p$;C ₆ H ₄ $\hat{1}^p$;SO ₃ Na} ₃]) and Trisodium Aquacarbonyltris[3-(diphenylphosphino- $\hat{1}^p$)P]. <i>Helvetica Chimica Acta</i> , 2005, 88, 566-573.	1.6	5

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73	DFT Study on the Mechanism of Hydrogen Storage Based on the Formate-Bicarbonate Equilibrium Catalyzed by an Ir-NHC Complex: An Elusive Intramolecular C-H Activation. <i>Inorganic Chemistry</i> , 2018, 57, 5903-5914.	4.0	5
74	Synthesis and catalytic activity of new, water-soluble mono- and dinuclear ruthenium(II) complexes containing 1,3,5-triaza-7-phosphaadamantane: Study of the effect of the visible light. <i>Inorganica Chimica Acta</i> , 2018, 470, 82-92.	2.4	5
75	Hydrogenation of calcium carbonate in aqueous systems catalyzed by Rh(I)- and Ru(II)-complexes using poly(methylhydrosiloxane) or hypophosphite as hydrogen sources. <i>Reaction Kinetics and Catalysis Letters</i> , 2007, 91, 361-368.	0.6	4
76	Promoter effect of bicarbonate in hydrogenation of cinnamaldehyde catalyzed by a water-soluble Ru(II)-phosphine complex. <i>Inorganica Chimica Acta</i> , 2018, 472, 302-306.	2.4	4
77	Redox Isomerization of Allylic Alcohols Catalyzed by New Water-Soluble Rh(I)-N-Heterocyclic Carbene Complexes. <i>Catalysts</i> , 2020, 10, 1361.	3.5	4
78	Selective reduction of alkynes to alkenes with hydrogen or formic acid catalyzed by cis,mer-[IrH ₂ Cl(mtpmms) ₃]. <i>Inorganica Chimica Acta</i> , 2021, 522, 120359.	2.4	4
79	Selective hydrogenation of cinnamaldehyde and phospholipids in aqueous-organic biphasic systems with ruthenium(II) complex catalysts. <i>Green Processing and Synthesis</i> , 2014, 3, 127-132.	3.4	3
80	Mechanochemical P-derivatization of 1,3,5-Triaza-7-Phosphaadamantane (PTA) and Silver-Based Coordination Polymers Obtained from the Resulting Phosphobetaines. <i>Molecules</i> , 2020, 25, 5352.	3.8	3
81	Water-soluble Ag(I)-based coordination polymers obtained by anion-directed self-assembly of various AgX salts and a phosphobetaine derived from 1,3,5-triaza-7-phosphaadamantane. <i>Inorganica Chimica Acta</i> , 2021, 520, 120299.	2.4	3
82	Immobilization of an Iridium(I)-NHC-Phosphine Catalyst for Hydrogenation Reactions under Batch and Flow Conditions. <i>Catalysts</i> , 2021, 11, 656.	3.5	2
83	Crystal structure of zwitterionic 3,3'-bis[1,1'-bis-(butane-1,4-diyl)bis(1H-imidazol-3-ium-3,1-diyl)]bis(propane-1-sulfonate) dihydrate. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2020, 76, 1353-1356.	0.5	2
84	Effect of Iodide on the pH-Controlled Hydrogenations of Diphenylacetylene and Cinnamaldehyde Catalyzed by Ru(II)-Sulfonated Triphenylphosphine Complexes in Aqueous/Organic Biphasic Systems. <i>Catalysts</i> , 2022, 12, 518.	3.5	2
85	Solvent-free N-alkylation of 1,3,5-triaza-7-phosphaadamantane (PTA). <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2019, 194, 469-470.	1.6	1
86	Water-mediated formation of hydride derivatives from flexible Pd-salan complexes: A DFT study. <i>Molecular Catalysis</i> , 2021, 500, 111331.	2.0	1
87	Hydrogenation of Cinnamaldehyde by Water-Soluble Ruthenium(II) Phosphine Complexes: A DFT Study on the Selectivity and Viability of trans-Dihydride Pathways. <i>European Journal of Inorganic Chemistry</i> , 2021, 2021, 236-242.	2.0	1
88	Homogeneous catalytic hydrogenation of lipids in aqueous dispersions and bacterial cell membranes with an efficient water-soluble Pd(II)-sulfosalan catalyst, Na ₂ [Pd(HSS)]. <i>Catalysis Communications</i> , 2020, 147, 106153.	3.3	0
89	A double phosphobetaine formed from 1,3,5-triaza-7-phosphaadamantane (PTA) with acetylenedicarboxylic acid and its Ag(CF ₃ SO ₃)-based coordination polymer. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 0, 1-3.	1.6	0
90	Synthesis and catalytic application of new [IrCl(cod)] ₂ (1/2-diNHC) and [Ir(cod)(sulfonated) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	1.6	0

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91	Novel three-dimensional coordination polymer of 2-(1,3,5-triaza-7-phosphoniatri-cyclo[3.3.1.1 ^{3,7}]decan-7-yl)ethanoic acid with silver(I) tetrafluoroborate. Acta Crystallographica Section E: Crystallographic Communications, 2022, 78, 251-254.	0.5	0
92	Trip protonated 1,3,5-triaza-7-phosphaadamantane (PTA); fantasy or real intermediate on way from PTA to tetradentate tris(aminomethyl)phosphine?. Phosphorus, Sulfur and Silicon and the Related Elements, 0, , 1-3.	1.6	0