

Jose A Mata

List of Publications by Year in descending order

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106
times ranked

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#	ARTICLE	IF	CITATIONS
1	Complexes with Poly(N-heterocyclic carbene) Ligands: Structural Features and Catalytic Applications. <i>Chemical Reviews</i> , 2009, 109, 3677-3707.	47.7	797
2	Structural and catalytic properties of chelating bis- and tris-N-heterocyclic carbenes. <i>Coordination Chemistry Reviews</i> , 2007, 251, 841-859.	18.8	447
3	Palladium Complexes with Tridentate Pincer Bis-Carbene Ligands as Efficient Catalysts for C ^α -C Coupling. <i>Organometallics</i> , 2002, 21, 700-706.	2.3	364
4	Heterometallic complexes, tandem catalysis and catalytic cooperativity. <i>Chemical Science</i> , 2014, 5, 1723-1732.	7.4	285
5	New Ruthenium(II) CNC-Pincer Bis(carbene) Complexes: Synthesis and Catalytic Activity. <i>Organometallics</i> , 2003, 22, 1110-1114.	2.3	249
6	Reactivity Differences in the Syntheses of Chelating N-Heterocyclic Carbene Complexes of Rhodium Are Ascribed to Ligand Anisotropy. <i>Organometallics</i> , 2004, 23, 1253-1263.	2.3	199
7	Well-Defined Ir/Pd Complexes with a Triazolyl-diylidene Bridge as Catalysts for Multiple Tandem Reactions. <i>Journal of the American Chemical Society</i> , 2009, 131, 14531-14537.	13.7	159
8	Hydrodefluorination of carbon-fluorine bonds by the synergistic action of a ruthenium-palladium catalyst. <i>Nature Communications</i> , 2013, 4, 2553.	12.8	141
9	Catalyst Enhancement and Recyclability by Immobilization of Metal Complexes onto Graphene Surface by Noncovalent Interactions. <i>ACS Catalysis</i> , 2014, 4, 2038-2047.	11.2	137
10	Homo- and Heterodinuclear Complexes with Triazolyl-diylidene. An Easy Approach to Tandem Catalysts. <i>Organometallics</i> , 2008, 27, 3570-3576.	2.3	135
11	Triazole-diylidenes: A Versatile Class of Ligands for the Preparation of Discrete Molecules of Homo- and Hetero-Binuclear Complexes for Improved Catalytic Applications. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 3729-3731.	13.8	131
12	One-Pot Preparation of Imines from Nitroarenes by a Tandem Process with an Ir-Pd Heterodimetallic Catalyst. <i>Chemistry - A European Journal</i> , 2010, 16, 10502-10506.	3.3	124
13	Domino Approach to Benzofurans by the Sequential Sonogashira/Hydroalkoxylation Couplings Catalyzed by New N-Heterocyclic-Carbene-Palladium Complexes. <i>Organometallics</i> , 2009, 28, 4335-4339.	2.3	113
14	Synthesis of a Dirhodium(I) Bisimidazolium Carbene Complex and Catalytic Activity toward Hydroformylation of Olefins. High-Pressure NMR Spectroscopy of the Catalyst under Catalytic Conditions. <i>Organometallics</i> , 2003, 22, 440-444.	2.3	111
15	Aliphatic versus Aromatic C-H Activation in the Formation of Abnormal Carbenes with Iridium: A Combined Experimental and Theoretical Study. <i>Organometallics</i> , 2007, 26, 5304-5314.	2.3	94
16	Alternative Energy Input for Transfer Hydrogenation using Iridium NHC Based Catalysts in Glycerol as Hydrogen Donor and Solvent. <i>Organometallics</i> , 2012, 31, 3911-3919.	2.3	84
17	In situ decoration of graphene sheets with gold nanoparticles synthesized by pulsed laser ablation in liquids. <i>Scientific Reports</i> , 2016, 6, 30478.	3.3	84
18	Catalytic Diboration of Unsaturated Molecules with Platinum(0)-NHC: Selective Synthesis of 1,2-Dihydroxysulfones. <i>Organometallics</i> , 2006, 25, 5829-5831.	2.3	78

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19	An Ir ^{III} -Pt Catalyst for the Multistep Preparation of Functionalized Indoles from the Reaction of Amino Alcohols and Alkynyl Alcohols. <i>Chemistry - A European Journal</i> , 2010, 16, 13109-13115.	3.3	78
20	Iridium NHC Based Catalysts for Transfer Hydrogenation Processes Using Glycerol as Solvent and Hydrogen Donor. <i>Organometallics</i> , 2011, 30, 5532-5536.	2.3	76
21	Immobilization of Pyrene-Tagged Palladium and Ruthenium Complexes onto Reduced Graphene Oxide: An Efficient and Highly Recyclable Catalyst for Hydrodefluorination. <i>Organometallics</i> , 2015, 34, 1186-1190.	2.3	76
22	Heterobimetallic Iridium ^{III} -Ruthenium Assemblies through an Ambidentate Triazole-Diylidene Ligand: Electrochemical Properties and Catalytic Behavior in a Cascade Reaction. <i>Organometallics</i> , 2012, 31, 6450-6456.	2.3	73
23	Dual Catalysis with an Ir ^{III} -Au ^I Heterodimetallic Complex: Reduction of Nitroarenes by Transfer Hydrogenation using Primary Alcohols. <i>Chemistry - A European Journal</i> , 2012, 18, 6380-6385.	3.3	73
24	Y-Shaped Tris-N-Heterocyclic-Carbene Ligand for the Preparation of Multifunctional Catalysts of Iridium, Rhodium, and Palladium. <i>Organometallics</i> , 2012, 31, 5606-5614.	2.3	69
25	The Radical Trap in Atom Transfer Radical Polymerization Need Not Be Thermodynamically Stable. A Study of the MoX ₃ (PMe ₃) ₃ Catalysts. <i>Journal of the American Chemical Society</i> , 2005, 127, 5946-5956.	13.7	66
26	Enantioselective Preparation of a Chiral-at-Metal Cp*Ir(NHC) Complex and Its Application in the Catalytic Diboration of Olefins. <i>Organometallics</i> , 2007, 26, 4350-4353.	2.3	59
27	Palladium Complexes with Triazolylidene. Structural Features and Catalytic Applications. <i>Organometallics</i> , 2009, 28, 1480-1483.	2.3	58
28	Recent Developments in the Applications of Palladium Complexes Bearing N-Heterocyclic Carbene Ligands. <i>Current Organic Chemistry</i> , 2011, 15, 3309-3324.	1.6	58
29	Mechanism of the Catalytic Hydrodefluorination of Pentafluoropyridine by Group Six Triangular Cluster Hydrides Containing Phosphines: A Combined Experimental and Theoretical Study. <i>Organometallics</i> , 2011, 30, 290-297.	2.3	57
30	High Production of Hydrogen on Demand from Silanes Catalyzed by Iridium Complexes as a Versatile Hydrogen Storage System. <i>ACS Catalysis</i> , 2018, 8, 2558-2566.	11.2	57
31	Alkenyl-functionalized NHC iridium-based catalysts for hydrosilylation. <i>New Journal of Chemistry</i> , 2008, 32, 120-126.	2.8	54
32	High yield synthesis of trinuclear [M ₃ S ₄ X ₃ (diphos) ₃] ⁺ (M=Mo, W; X=Cl, Br and diphos=dmpe, dppe) molecular clusters from solid state materials. Synthesis and structure of [W ₃ S ₄ H ₃ (dppe) ₃](BPh ₄). <i>Polyhedron</i> , 2001, 20, 527-535.	2.2	53
33	Preparation of Cp-Functionalized N-Heterocyclic Carbene Complexes of Ruthenium. Resolution of Chiral Complexes and Catalytic Studies. <i>Organometallics</i> , 2010, 29, 1832-1838.	2.3	52
34	The active role of NHC ligands in platinum-mediated tandem hydroboration ^{II} -cross coupling reactions. <i>Chemical Communications</i> , 2007, , 2184-2186.	4.1	51
35	Unconventional Reactivity of Imidazolylidene Pyridylidene Ligands in Iridium(III) and Rhodium(III) Complexes. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10841-10845.	13.8	46
36	Catalytic Dehydrogenative Coupling of Hydrosilanes with Alcohols for the Production of Hydrogen On-demand: Application of a Silane/Alcohol Pair as a Liquid Organic Hydrogen Carrier. <i>Chemistry - A European Journal</i> , 2017, 23, 10815-10821.	3.3	46

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37	Shvo's Catalyst and [IrCp*Cl ₂ (amidine)] Effectively Catalyze the Formation of Tertiary Amines from the Reaction of Primary Alcohols and Ammonium Salts. <i>Advanced Synthesis and Catalysis</i> , 2011, 353, 2078-2084.	4.3	44
38	Double C≡H Bond Activation of C(sp ³)H ₂ Groups for the Preparation of Complexes with Back-to-Back Bisimidazolynylidenes. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 7666-7669.	13.8	44
39	Ruthenium molecular complexes immobilized on graphene as active catalysts for the synthesis of carboxylic acids from alcohol dehydrogenation. <i>Catalysis Science and Technology</i> , 2016, 6, 8024-8035.	4.1	44
40	[Cr(dpa)(ox) ₂] ⁺ : a new bis-oxalato building block for the design of heteropolymetallic systems. Crystal structures and magnetic properties of PPh ₄ [Cr(dpa)(ox) ₂], AsPh ₄ [Cr(dpa)(ox) ₂], Hdpa[Cr(dpa)(ox) ₂] ⁺ ·4H ₂ O, Rad[Cr(dpa)(ox) ₂] ⁺ ·H ₂ O and Sr[Cr(dpa)(ox) ₂] ₂ ·8H ₂ O (dpa = 2,2'-dipyridylamine). <i>New Journal of Chemistry</i> , 2001, 25, 1224-1235.	2.8	42
41	Chiral Palladacycles with N-Heterocyclic Carbene Ligands as Catalysts for Asymmetric Hydrophosphination. <i>Organometallics</i> , 2013, 32, 1112-1120.	2.3	41
42	Preparation, Properties, and Crystal Structure of New Conjugated Oligomers with a Pendant Ferrocenyl and an End-Capped Pyridine. <i>Organometallics</i> , 2000, 19, 3797-3802.	2.3	40
43	Large second-order NLO properties of new conjugated oligomers with a pendant ferrocenyl and an end-capped pyridine. <i>New Journal of Chemistry</i> , 2001, 25, 1043-1046.	2.8	38
44	Palladium N-Heterocyclic Carbene Catalysts for the Ultrasound-Promoted Suzuki-Miyaura Reaction in Glycerol. <i>Advanced Synthesis and Catalysis</i> , 2013, 355, 1107-1116.	4.3	38
45	Syntheses, characterization and second-order nonlinear optical behavior of new ferrocenyl-terminated phenylethylenyl oligomers with a pendant nitro group. <i>New Journal of Chemistry</i> , 2001, 25, 299-304.	2.8	37
46	Catalytic Hydrogen Production by Ruthenium Complexes from the Conversion of Primary Amines to Nitriles: Potential Application as a Liquid Organic Hydrogen Carrier. <i>Chemistry - A European Journal</i> , 2016, 22, 17758-17766.	3.3	37
47	A Y-Shaped Tris-N-Heterocyclic Carbene for the Synthesis of Simultaneously Chelate-Monodentate Dipalladium Complexes. <i>Organometallics</i> , 2011, 30, 5985-5990.	2.3	36
48	An Experimental and Computational Study on the Effect of Al(OiPr) ₃ on Atom-Transfer Radical Polymerization and on the Catalyst-Dormant-Chain Halogen Exchange. <i>Chemistry - A European Journal</i> , 2005, 11, 2537-2548.	3.3	35
49	Intramolecular Oxidation of the Alcohol Functionalities in Hydroxyalkyl-N-Heterocyclic Carbene Complexes of Iridium and Rhodium. <i>Chemistry - A European Journal</i> , 2011, 17, 10453-10461.	3.3	35
50	Catalytic 1,3-Bifunctionalisation of Organic Backbones through a Highly Stereoselective, One-Pot, Boron Conjugate-Addition/Reduction/Oxidation Process. <i>Chemistry - A European Journal</i> , 2011, 17, 14248-14257.	3.3	35
51	Highly Active Cp*Ir Catalyst at Low Temperatures Bearing an N-Heterocyclic Carbene Ligand and a Chelated Primary Benzylamine in Transfer Hydrogenation. <i>Organometallics</i> , 2014, 33, 6830-6839.	2.3	34
52	Facile synthesis of first generation ferrocene dendrimers by a convergent approach using ditopic conjugated dendrons. Electronic supplementary information (ESI) available: molecular structure of 2. See http://www.rsc.org/suppdata/nj/b1/b108142j/ . <i>New Journal of Chemistry</i> , 2002, 26, 291-297.	2.8	32
53	Design of single cyanide-bridged tetranuclear bimetallic rectangles exhibiting ferromagnetic coupling. <i>Inorganic Chemistry Communication</i> , 2005, 8, 382-385.	3.9	29
54	Enhancement of gold catalytic activity and stability by immobilization on the surface of graphene. <i>Journal of Catalysis</i> , 2017, 352, 498-504.	6.2	26

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55	Preparation, properties and coordination of new conjugated ferrocenyl-based ligands with an end-capped nitrile. <i>Journal of Organometallic Chemistry</i> , 2000, 616, 80-88.	1.8	24
56	Preparation and properties of new ferrocenyl heterobimetallic complexes with counterion dependent NLO responses. <i>Polyhedron</i> , 2001, 20, 2083-2088.	2.2	23
57	A methylene-bis-triazolium ligand precursor in an unusual rearrangement of norbornadiene to nortricycyl. Electronic supplementary information (ESI) available: ¹ H and ¹³ C{ ¹ H} NMR data for 3a and 3b. See http://www.rsc.org/suppdata/cc/b2/b210726k/ . <i>Chemical Communications</i> , 2003, , 184-185.	4.1	23
58	Ligand effects in the stabilization of gold nanoparticles anchored on the surface of graphene: Implications in catalysis. <i>Journal of Catalysis</i> , 2021, 394, 113-120.	6.2	23
59	Rhodium and Iridium Complexes with Chelating <i>trans</i> -Imidazolylidene- <i>trans</i> -Pyridylidene Ligands: Systematic Approach to Normal, Abnormal, and Remote Coordination Modes. <i>Organometallics</i> , 2012, 31, 5169-5176.	2.3	22
60	Synthesis of Heterodimetallic Iridium-Palladium Complexes Containing Two Axes of Chirality: Study of Sequential Catalytic Properties. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 4764-4769.	2.0	22
61	Stabilization of Nanoparticles Produced by Hydrogenation of Palladium- <i>N</i> -Heterocyclic Carbene Complexes on the Surface of Graphene and Implications in Catalysis. <i>ACS Omega</i> , 2018, 3, 15217-15228.	3.5	22
62	Catalytic applications of magnetic nanoparticles functionalized using iridium <i>N</i> -heterocyclic carbene complexes. <i>New Journal of Chemistry</i> , 2015, 39, 6437-6444.	2.8	21
63	Iridium complexes catalysed the selective dehydrogenation of glucose to gluconic acid in water. <i>Green Chemistry</i> , 2018, 20, 4094-4101.	9.0	21
64	Syntheses, crystal structures and electrochemical studies of bi- and trimetallic conjugated ferrocene-based complexes. <i>Dalton Transactions RSC</i> , 2001, , 3634-3640.	2.3	19
65	Perceptible Influence of Pd and Pt Heterocyclic Carbene- <i>trans</i> -Pyridyl Complexes in Catalytic Diboration of Cyclic Alkenes. <i>Chemistry - an Asian Journal</i> , 2010, 5, 261-264.	3.3	19
66	Synthesis and Characterization of MoO ₂ (PMe ₃) ₃ and Use of MoOX ₂ (PMe ₃) ₃ (X = Cl, I) in Controlled Radical Polymerization. <i>European Journal of Inorganic Chemistry</i> , 2006, 2006, 2624-2633.	2.0	18
67	Homodimetallic iron(II) hydrazones: syntheses, spectroscopic, electrochemical, and theoretical investigations. X-Ray crystal structure of both syn- and anti- rotamers of [(<i>trans</i> -5-Cp)Fe(<i>trans</i> -6-C ₆ H ₅)NHN=C(Me)](<i>trans</i> -5-C ₅ H ₄)Fe(<i>trans</i> -5-Cp)] ⁺ PF ₆ ⁻ . <i>New Journal of Chemistry</i> , 2002, 26, 213-221.	2.8	17
68	IR Spectroscopic study of hydrogen bonding using a metal carbonyl probe. <i>Journal of the Chemical Society Dalton Transactions</i> , 1999, , 3893-3898.	1.1	16
69	Enantiomerically Pure Cyclopentadienyl- and Indenyl-Functionalized <i>N</i> -Heterocyclic Carbene Complexes of Iridium and Rhodium. <i>Organometallics</i> , 2011, 30, 4437-4442.	2.3	16
70	The non-innocent role of graphene in the formation/immobilization of ultra-small gold nanoparticles functionalized with <i>N</i> -heterocyclic carbene ligands. <i>Journal of Catalysis</i> , 2019, 375, 419-426.	6.2	16
71	Facile synthesis of bidimensional ferrocenyl-based branched oligomers by palladium-catalyzed coupling reactions. <i>Journal of Organometallic Chemistry</i> , 2001, 637-639, 191-197.	1.8	15
72	Ortho-Metalated Benzenethiolate Bridging Dinuclear Palladium(II) Complexes. X-ray Structures of [Sn ₂ (<i>trans</i> -4-C ₆ H ₄ S) ₂ (tBu) ₄] and [Pd ₂ (<i>trans</i> -4-C ₆ H ₄ S)(<i>trans</i> -4-dppm) ₂ Cl ₂]. <i>Organometallics</i> , 2002, 21, 121-126.	2.3	15

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73	Reduced Graphene Oxides as Carbocatalysts in Acceptorless Dehydrogenation of N-Heterocycles. ACS Catalysis, 2021, 11, 14688-14693.	11.2	15
74	Visible-Light-Promoted Iridium(III)-Catalyzed Acceptorless Dehydrogenation of N-Heterocycles at Room Temperature. ACS Catalysis, 2022, 12, 6238-6245.	11.2	15
75	Preparation, characterization and electrochemical and X-ray structural studies of new conjugated 1,1'-ferrocenediyl-ended [CpFe-arylhydrazone]+salts. New Journal of Chemistry, 2004, 28, 134-144.	2.8	14
76	Multiple-Metal (De)Hydrogenation-Catalysed Processes. European Journal of Inorganic Chemistry, 2016, 2016, 2667-2675.	2.0	14
77	A Simple Route to Chelating, Structurally Different Triazole-Based Bis(N-heterocyclic carbene) Ligands and Their Coordination to PtII. European Journal of Inorganic Chemistry, 2011, 2011, 416-421.	2.0	13
78	Improving Catalyst Activity in Hydrocarbon Functionalization by Remote Pyrene-Graphene Stacking. Chemistry - A European Journal, 2019, 25, 9534-9539.	3.3	12
79	Organodiiron(II)-complexes containing a long conjugated hydrazone spacer. Synthesis, characterization, electrochemical and structural studies. Journal of Organometallic Chemistry, 2002, 660, 71-77.	1.8	11
80	Donor/acceptor organoiron(II) hydrazone chromophores: structural, spectroscopic and electrochemical properties. Journal of Organometallic Chemistry, 2005, 690, 1265-1272.	1.8	11
81	A simple, safe and robust system for hydrogenation -without high-pressure gases- under batch and flow conditions using a liquid organic hydrogen carrier. Green Chemistry, 2022, 24, 2036-2043.	9.0	11
82	Selective Conversion of Various Monosaccharides into Sugar Acids by Additive-Free Dehydrogenation in Water. ChemCatChem, 2020, 12, 3746-3752.	3.7	9
83	Tailoring graphene-supported Ru nanoparticles by functionalization with pyrene-tagged N-heterocyclic carbenes. Catalysis Science and Technology, 2022, 12, 1257-1270.	4.1	9
84	A Platinum Molecular Complex Immobilised on the Surface of Graphene as Active Catalyst in Alkyne Hydrosilylation. European Journal of Inorganic Chemistry, 2020, 2020, 4254-4262.	2.0	8
85	Unraveling a Biomass-Derived Multiphase Catalyst for the Dehydrogenative Coupling of Silanes with Alcohols under Aerobic Conditions. ACS Sustainable Chemistry and Engineering, 2021, 9, 2912-2928.	6.7	8
86	Pd-mediated synthesis of linked conjugated tri- and penta-ferrocenyl complexes. Inorganica Chimica Acta, 2003, 343, 175-182.	2.4	6
87	Coordination Singularities of a Bis(p-xylyl)bis(benzimidazolylidene) Ligand and the Bis-iridium and -rhodium-Related Complexes. Organometallics, 2013, 32, 6613-6619.	2.3	5
88	X-RAY CRYSTAL AND MOLECULAR STRUCTURE OF AN ORGANOMETALLIC HYDRAZONE CONTAINING A ZIGZAG p-CONJUGATED SPACER: [CpFe(h6-C6H5)-N(Me)N=CH-C6H4-4-NMe2]+ PF6-. Journal of the Chilean Chemical Society, 2003, 48, .	1.2	5
89	Novel ferrocenyl-oxazoline ligands: first preparation of non-symmetrical bis(oxazoline). Polyhedron, 2004, 23, 611-616.	2.2	3
90	Introducing Catalysis to Undergraduate Chemistry Students: Testing a Ru-NHC Complex in the Selective Dehydrogenative Coupling of Hydrosilanes and Alcohols. Journal of Chemical Education, 2021, 98, 2638-2642.	2.3	3

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91	ORGANOMETALLIC IRON(II) COMPLEXES CONTAINING P-SUBSTITUTED ACETOPHENONE-ARYLHYDRAZONE LIGANDS. <i>Journal of the Chilean Chemical Society</i> , 2002, 47, .	0.1	3
92	Synthesis and Properties of Chelating N-Heterocyclic Carbene Rhodium(I) Complexes: Synthetic Experiments in Current Organometallic Chemistry. <i>Journal of Chemical Education</i> , 2011, 88, 822-824.	2.3	2
93	Stereoisomerization of 1-hydroxy-2-sulfonyl-2,2-dimethyl naphthoquinones controlled by nonbonded sulfur-oxygen interactions. <i>Tetrahedron</i> , 2013, 69, 2098-2101.	1.9	2
94	Gold nanoparticle-catalysed functionalization of carbon-hydrogen bonds by carbene transfer reactions. <i>Dalton Transactions</i> , 2022, 51, 5250-5256.	3.3	2