Robert H Morris

List of Publications by Citations

257 papers	16,600 citations	66 h-index	123 g-index
301 ext. papers	17,800 ext. citations	7.4 avg, IF	7.12 L-index

#	Paper	IF	Citations
257	Frontiers, opportunities, and challenges in biochemical and chemical catalysis of CO2 fixation. *Chemical Reviews*, **2013**, 113, 6621-58	68.1	1415
256	Mechanisms of the H2-hydrogenation and transfer hydrogenation of polar bonds catalyzed by ruthenium hydride complexes. *Coordination Chemistry Reviews*, **2004**, 248, 2201-2237	23.2	1121
255	Asymmetric hydrogenation, transfer hydrogenation and hydrosilylation of ketones catalyzed by iron complexes. *Chemical Society Reviews*, **2009**, 38, 2282-91	58.5	638
254	Reactions of transition metal dihydrogen complexes. *Coordination Chemistry Reviews*, **1992**, 121, 155-284	23.2	608
253	Mechanism of the hydrogenation of ketones catalyzed by trans-dihydrido(diamine)ruthenium II complexes. *Journal of the American Chemical Society*, **2002**, 124, 15104-18	16.4	462
252	Amine(imine)diphosphine iron catalysts for asymmetric transfer hydrogenation of ketones and imines. *Science*, **2013**, 342, 1080-3	33.3	388
251	Exploiting metal-ligand bifunctional reactions in the design of iron asymmetric hydrogenation catalysts. *Accounts of Chemical Research*, **2015**, 48, 1494-502	24.3	318
250	Highly efficient catalyst systems using iron complexes with a tetradentate PNNP ligand for the asymmetric hydrogenation of polar bonds. *Angewandte Chemie - International Edition*, **2008**, 47, 940-3	16.4	296
249	Catalytic cycle for the asymmetric hydrogenation of prochiral ketones to chiral alcohols: direct hydride and proton transfer from chiral catalysts trans-Ru(H)(2)(diphosphine)(diamine) to ketones and direct addition of dihydrogen to the resulting hydridoamido complexes. *Journal of the*	16.4	255
248	Efficient asymmetric transfer hydrogenation of ketones catalyzed by an iron complex containing a P-N-N-P tetradentate ligand formed by template synthesis. *Journal of the American Chemical Society*, **2009**, 131, 1394-5	16.4	244
247	Iron(II) complexes containing unsymmetrical P-N-P' pincer ligands for the catalytic asymmetric hydrogenation of ketones and imines. *Journal of the American Chemical Society*, **2014**, 136, 1367-80	16.4	241
246	Switching On and Off a New Intramolecular Hydrogen-Hydrogen Interaction and the Heterolytic Splitting of Dihydrogen. Crystal and Molecular Structure of [Ir{H(.eta.1-SC5H4NH)}2(PCy3)2]BF4.cntdot.2.7CH2Cl2. *Journal of the American Chemical Society*, **1994**, 116, 8356-8357	16.4	232
245	An Acidity Scale for Phosphorus-Containing Compounds Including Metal Hydrides and Dihydrogen Complexes in THF: Toward the Unification of Acidity Scales. *Journal of the American Chemical Society*, **2000**, 122, 9155-9171	16.4	213
244	Dihydrogen with Frequency of Motion Near the 1H Larmor Frequency. Solid-State Structures and Solution NMR Spectroscopy of Osmium Complexes trans-[Os(H□H)X(PPh2CH2CH2PPh2)2]+ (X = Cl, Br). *Journal of the American Chemical Society*, **1996**, 118, 5396-5407	16.4	200
243	Iron nanoparticles catalyzing the asymmetric transfer hydrogenation of ketones. *Journal of the American Chemical Society*, **2012**, 134, 5893-9	16.4	197
242	Hydrogenation versus transfer hydrogenation of ketones: two established ruthenium systems catalyze both. *Chemistry - A European Journal*, **2003**, 9, 4954-67	4.8	195
241	RuHCl(diphosphine)(diamine): Catalyst Precursors for the Stereoselective Hydrogenation of Ketones and Imines1. *Organometallics*, **2001**, 20, 1047-1049	3.8	172

240	Iron(II) complexes for the efficient catalytic asymmetric transfer hydrogenation of ketones. *Chemistry - A European Journal*, **2009**, 15, 5605-10	4.8	161
239	The mechanism of efficient asymmetric transfer hydrogenation of acetophenone using an iron(II) complex containing an (S,S)-Ph2PCH2CH?NCHPhCHPhN?CHCH2PPh2 ligand: partial ligand reduction is the key. *Journal of the American Chemical Society*, **2012**, 134, 12266-80	16.4	160
238	A succession of isomers of ruthenium dihydride complexes. Which one is the ketone hydrogenation catalyst?. *Journal of the American Chemical Society*, **2005**, 127, 1870-82	16.4	158
237	Fundamentals and applications of photocatalytic CO methanation. *Nature Communications*, **2019**, 10, 3169	17.4	157
236	Brønsted-Lowry Acid Strength of Metal Hydride and Dihydrogen Complexes. *Chemical Reviews*, **2016**, 116, 8588-654	68.1	151
235	Low-valent ene-amido iron complexes for the asymmetric transfer hydrogenation of acetophenone without base. *Journal of the American Chemical Society*, **2011**, 133, 9662-5	16.4	147
234	Preparation and spectroscopic properties of the .eta.2-dihydrogen complexes [MH(.eta.2-H2)PR2CH2CH2PR2)2] + (M = iron, ruthenium; R = Ph, Et) and trends in properties down the iron group triad. *Journal of the American Chemical Society*, **1991**, 113, 4876-4887	16.4	146
233	Effect of the Ligand and Metal on the pKa Values of the Dihydrogen Ligand in the Series of Complexes [M(H2)H(L)2]+, M = Fe, Ru, Os, Containing Isosteric Ditertiaryphosphine Ligands, L. *Journal of the American Chemical Society*, **1994**, 116, 3375-3388	16.4	137
232	Influence of Chloride versus Hydride on H-H Bonding and Acidity of the Trans Dihydrogen Ligand in the Complexes trans-[Ru(H2)X(PR2CH2CH2PR2)2]+, X = Cl, H, R = Ph, Et. Crystal Structure Determinations of [RuCl(dppe)2]PF6 and trans-[Ru(H2)Cl(dppe)2]PF6. *Inorganic Chemistry*, **1994**, 33, 6278-6288	5.1	131
231	Dihydrogen, dihydride and in between: NMR and structural properties of iron group complexes. *Coordination Chemistry Reviews*, **2008**, 252, 2381-2394	23.2	127
230	Synthesis and characterization of iron(II) complexes with tetradentate diiminodiphosphine or diaminodiphosphine ligands as precatalysts for the hydrogenation of acetophenone. *Inorganic Chemistry*, **2009**, 48, 735-43	5.1	124
229	Using nature's blueprint to expand catalysis with Earth-abundant metals. *Science*, **2020**, 369,	33.3	124
228	Ruthenium Dihydride RuH2(PPh3)2((R,R)-cyclohexyldiamine) and Ruthenium Monohydride RuHCl(PPh3)2((R,R)-cyclohexyldiamine): Active Catalyst and Catalyst Precursor for the Hydrogenation of Ketones and Imines. *Organometallics*, **2000**, 19, 2655-2657	3.8	119
227	Catalytic Homogeneous Asymmetric Hydrogenation: Successes and Opportunities. *Organometallics*, **2019**, 38, 47-65	3.8	117
226	Hydrogenation of Benzonitrile to Benzylamine Catalyzed by Ruthenium Hydride Complexes with PNHNHP Tetradentate Ligands: Evidence for a Hydridic−Protonic Outer Sphere Mechanism. *Organometallics*, **2007**, 26, 5940-5949	3.8	115
225	Coordinatively Unsaturated Hydridoruthenium(II) Complexes of N-Heterocyclic Carbenes. *Organometallics*, **2004**, 23, 86-94	3.8	115
224	.eta.2-Dihydrogen on the brink of homolytic cleavage: trans-[Os(H.cntdot..cntdot..cntdot.H)H(PEt2CH2CH2PEt2)2]+ has spectroscopic and chemical properties between those of the isoelectronic complexes trans-[OsH(PPh2CH2CH2PPh2)2(.eta.2-H2)]+ and ReH3(PPh2CH2CH2PPh2)2. *Journal of the*	16.4	115
223	The hydrogenation of molecules with polar bonds catalyzed by a ruthenium(II) complex bearing a chelating N-heterocyclic carbene with a primary amine donor. *Chemical Communications*, **2010**, 46, 8240-2	5.8	114

222	Two molecular hydrogen complexes: trans-[M(.eta.2-H2)(H)(PPh2CH2CH2PPh2)2]BF4 (M = Fe, Ru). The crystal structure determination of the iron complex. *Journal of the American Chemical Society*, **1985**, 107, 5581-5582	16.4	114
221	Asymmetric transfer hydrogenation of ketimines using well-defined iron(II)-based precatalysts containing a PNNP ligand. *Organic Letters*, **2012**, 14, 4638-41	6.2	108
220	Stereoelectronic Factors in Iron Catalysis: Synthesis and Characterization of Aryl-Substituted Iron(II) Carbonyl PNNP Complexes and Their Use in the Asymmetric Transfer Hydrogenation of Ketones. *Organometallics*, **2011**, 30, 4418-4431	3.8	108
219	Wide range of pKa values of coordinated dihydrogen. Synthesis and properties of some .eta.2-dihydrogen and dihydride complexes of ruthenium. *Journal of the American Chemical Society*, **1991**, 113, 875-883	16.4	106
218	Estimation of the hydrogen-hydrogen distances of .eta.2-dihydrogen ligands in the complexes trans-[M(.eta.2-H2)(H)(PR2CH2CH2PR2)2]+ [M = iron, ruthenium, R = Ph, M = osmium, R = Et] by solution NMR methods. *Journal of the American Chemical Society*, **1988**, 110, 7031-7036	16.4	105
217	Kinetic hydrogen/deuterium effects in the direct hydrogenation of ketones catalyzed by a well-defined ruthenium diphosphine diamine complex. *Journal of the American Chemical Society*, **2009**, 131, 11263-9	16.4	103
216	Single Crystal Neutron Diffraction Study of the Complex [Ru(H.cntdot..cntdot..cntdot.H)(C5Me5)(dppm)]BF4 which Contains an Elongated Dihydrogen Ligand. *Journal of the American Chemical Society*, **1994**, 116, 7677-7681	16.4	101
215	Transmetalation of a Primary Amino-Functionalized N-Heterocyclic Carbene Ligand from an Axially Chiral Square-Planar Nickel(II) Complex to a Ruthenium(II) Precatalyst for the Transfer Hydrogenation of Ketones. *Organometallics*, **2009**, 28, 6755-6761	3.8	92
214	Enantioselective tandem michael addition/H2-hydrogenation catalyzed by ruthenium hydride borohydride complexes containing beta-aminophosphine ligands. *Journal of the American Chemical Society*, **2005**, 127, 516-7	16.4	92
213	Synthesis and the kinetic and thermodynamic acidity of .eta.2-dihydrogen and dihydride complexes of the type [Ru(C5Me5)H2L2]+. X-ray crystal structure determination of the complex [Ru(C5Me5)(.eta.2-H2)(PPh2CH2PPh2)]BF4. *Organometallics*, **1992**, 11, 161-171	3.8	92
212	Single-crystal x-ray and neutron diffraction studies of an .eta.2-dihydrogen transition-metal complex: trans-[Fe(.eta.2-H2)(H)(PPh2CH2CH2PPh2)2]BPh4. *Journal of the American Chemical Society*, **1989**, 111, 8823-8827	16.4	91
211	Applications of ruthenium hydride borohydride complexes containing phosphinite and diamine ligands to asymmetric catalytic reactions. *Organic Letters*, **2005**, 7, 1757-9	6.2	89
210	Estimating the acidity of transition metal hydride and dihydrogen complexes by adding ligand acidity constants. *Journal of the American Chemical Society*, **2014**, 136, 1948-59	16.4	88
209	1995 Alcan Award Lecture New intermediates in the homolytic and heterolytic splitting of dihydrogen. *Canadian Journal of Chemistry*, **1996**, 74, 1907-1915	0.9	88
208	Effect of the structure of the diamine backbone of P-N-N-P ligands in iron(II) complexes on catalytic activity in the transfer hydrogenation of acetophenone. *Inorganic Chemistry*, **2010**, 49, 11039-44	5.1	87
207	Synthesis of Ruthenium Hydride Complexes Containing beta-Aminophosphine Ligands Derived from Amino Acids and their use in the H2-Hydrogenation of Ketones and Imines. *Advanced Synthesis and Catalysis*, **2005**, 347, 571-579	5.6	87
206	Rational development of iron catalysts for asymmetric transfer hydrogenation. *Dalton Transactions*, **2014**, 43, 7650-67	4.3	86
205	A new type of intramolecular H ? H ? H interaction involving NH ? H(Ir)? HN atoms. Crystal and molecular structure of [IrH(.mu.1-SC5H4NH)2(.mu.2-SC5H4N)(PCy3)]BF4.0.72CH2Cl2. *Journal of the Chemical Society Chemical Communications*, **1994**, 2201-2202		84

204	Dihydridoamine and Hydridoamido Complexes of Ruthenium(II) with a Tetradentate PNNP Donor Ligand. *Organometallics*, **2004**, 23, 6239-6247	3.8	83
203	Iron complexes for the catalytic transfer hydrogenation of acetophenone: steric and electronic effects imposed by alkyl substituents at phosphorus. *Inorganic Chemistry*, **2010**, 49, 10057-66	5.1	81
202	Ester Hydrogenation Catalyzed by a Ruthenium(II) Complex Bearing an N-Heterocyclic Carbene Tethered with an NH2 Group and a DFT Study of the Proposed Bifunctional Mechanism. *ACS Catalysis*, **2013**, 3, 32-40	13.1	80
201	A Mechanism Displaying Autocatalysis: The Hydrogenation of Acetophenone Catalyzed by RuH(S-binap)(app) Where app Is the Amido Ligand Derived from 2-Amino-2-(2-pyridyl)propane. *Organometallics*, **2007**, 26, 5987-5999	3.8	79
200	Iron Catalysts Containing Amine(imine)diphosphine P-NH-N-P Ligands Catalyze both the Asymmetric Hydrogenation and Asymmetric Transfer Hydrogenation of Ketones. *Organometallics*, **2014**, 33, 5791-5801	3.8	77
199	Factors Favoring Efficient Bifunctional Catalysis. Study of a Ruthenium(II) Hydrogenation Catalyst Containing an N-Heterocyclic Carbene with a Primary Amine Donor. *Organometallics*, **2012**, 31, 2137-2151	3.8	76
198	Mechanistic Investigation of the Hydrogenation of Ketones Catalyzed by a Ruthenium(II) Complex Featuring an N-Heterocyclic Carbene with a Tethered Primary Amine Donor: Evidence for an Inner Sphere Mechanism. *Organometallics*, **2011**, 30, 1236-1252	3.8	76
197	Asymmetric Hydrogenation of Ketones Catalyzed by Ruthenium Hydride Complexes of a Beta-aminophosphine Ligand Derived from Norephedrine. *Organometallics*, **2004**, 23, 5524-5529	3.8	76
196	Inner-Sphere Activation, Outer-Sphere Catalysis: Theoretical Study on the Mechanism of Transfer Hydrogenation of Ketones Using Iron(II) PNNP Eneamido Complexes. *Organometallics*, **2012**, 31, 7375-7385	3.8	74
195	Ligand additivity effects and periodic trends in the stability and acidity of octahedral .eta.2-dihydrogen complexes of d6 transition metal ions. *Inorganic Chemistry*, **1992**, 31, 1471-1478	5.1	70
194	Ketone Asymmetric Hydrogenation Catalyzed by P-NH-P? Pincer Iron Catalysts: An Experimental and Computational Study. *ACS Catalysis*, **2017**, 7, 316-326	13.1	69
193	Bifunctional Mechanism with Unconventional Intermediates for the Hydrogenation of Ketones Catalyzed by an Iridium(III) Complex Containing an N-Heterocyclic Carbene with a Primary Amine Donor. *Organometallics*, **2012**, 31, 2152-2165	3.8	68
192	Synthesis and Characterization of RuH2(H2)2(PiPr3)2 and Related Chemistry. Evidence for a Bis(dihydrogen) Structure. *Organometallics*, **2000**, 19, 1652-1660	3.8	66
191	Dihydrogen Thiolate vs Hydride Thiol: Reactivity of the Series of Complexes MH(CO)(L)(PPh3)2 (M = Ru, Os; L = Pyridine-2-thiolate, Quinoline-8-thiolate) with Acid. X-ray Structure Determination of [Os(CO)(2-Spy)(SpyH)(PPh3)]2[BF4]2. *Organometallics*, **1996**, 15, 4423-4436	3.8	66
190	Unsymmetrical Iron P-NH-P' Catalysts for the Asymmetric Pressure Hydrogenation of Aryl Ketones. *Chemistry - A European Journal*, **2017**, 23, 7212-7216	4.8	64
189	Synthesis, Structure, and Properties of the Stable and Highly Acidic Dihydrogen Complex trans-[Os(2-H2)(CH3CN)(dppe)2](BF4)2. Perspectives on the Influence of the trans Ligand on the Chemistry of the Dihydrogen Ligand. *Organometallics*, **1996**, 15, 2270-2278	3.8	64
188	Monomeric and dimeric ruthenium(II) .eta.2-dihydrogen complexes with tricyclohexylphosphine co-ligands. *Inorganic Chemistry*, **1988**, 27, 598-599	5.1	63
187	Iridium(III) Complex Containing a Unique Bifurcated Hydrogen Bond Interaction Involving IrH(N)FB atoms. Crystal and Molecular Structure of [IrH(1-SC5H4NH)(2-SC5H4N)(PPh3)2](BF4)0.5C6H6. *Inorganic Chemistry*, **1996**, 35, 3001-3006	5.1	61

186	Distinguishing homogeneous from nanoparticle asymmetric iron catalysis. *Catalysis Science and Technology*, **2014**, 4, 3426-3438	5.5	59
185	Sulfur-bonded sulfoxide complexes of rhodium(III) and rhodium(I). *Canadian Journal of Chemistry*, **1980**, 58, 399-408	0.9	59
184	Dihydrogen vs. dihydride. Correlations between electrochemical or UV PES data and force constants for carbonyl or dinitrogen ligands in octahedral, d6 complexes and their use in explaining the behavior of the dihydrogen ligand. *Inorganic Chemistry*, **1987**, 26, 2674-2683	5.1	57
183	Iron(II) Complexes Containing Chiral Unsymmetrical PNP? Pincer Ligands: Synthesis and Application in Asymmetric Hydrogenations. *Organometallics*, **2016**, 35, 3781-3787	3.8	56
182	Bonding interactions between three adjacent hydrogen ligands. Preparation and spectroscopic properties of the tantalum and niobium complexes [Ta(H)3(C5H5□Rn)2](R = SiMe3, n= 1 or 2) and [Nb(H3)(C5H5□Rn)2](n= 1, R = Me or SiMe3; n= 2, R = SiMe3). *Journal of the Chemical Society Chemical Communications*, **1988**, 1210-1212		56
181	Synthesis of Iron P-N-P? and P-NH-P? Asymmetric Hydrogenation Catalysts. *Organometallics*, **2014**, 33, 6452-6465	3.8	55
180	Synthesis and use of an asymmetric transfer hydrogenation catalyst based on iron(II) for the synthesis of enantioenriched alcohols and amines. *Nature Protocols*, **2015**, 10, 241-57	18.8	55
179	Effect of chelating ring size in catalytic ketone hydrogenation: facile synthesis of ruthenium(II) precatalysts containing an N-heterocyclic carbene with a primary amine donor for ketone hydrogenation and a DFT study of mechanisms. *Dalton Transactions*, **2012**, 41, 8797-808	4.3	55
178	Details of the Mechanism of the Asymmetric Transfer Hydrogenation of Acetophenone Using the Amine(imine)diphosphine Iron Precatalyst: The Base Effect and The Enantiodetermining Step. *ACS Catalysis*, **2016**, 6, 301-314	13.1	54
177	Use of the new ligand P(CH2CH2PCy2)3 in the synthesis of dihydrogen complexes of iron(II) and ruthenium(II). *Organometallics*, **1993**, 12, 906-916	3.8	52
176	NMR properties of the complexes trans-[M(.eta.2-H2)(H)(PEt2CH2CH2PEt2)2]+ (M = Fe, Ru, Os). Intramolecular exchange of atoms between .eta.2-dihydrogen and hydride ligands. *Journal of the American Chemical Society*, **1987**, 109, 3780-3782	16.4	52
175	Evidence for Iron Nanoparticles Catalyzing the Rapid Dehydrogenation of Ammonia-Borane. *ACS Catalysis*, **2013**, 3, 1092-1102	13.1	51
174	Template syntheses of iron(II) complexes containing chiral P-N-N-P and P-N-N ligands. *Inorganic Chemistry*, **2008**, 47, 6587-9	5.1	51
173	Synthesis of the acidic dihydrogen complexes trans-[M(H2)(CN)L2]+ and trans-[M(H2)(CNH)L2]2+ where M = Fe, Ru, Os and L = dppm, dppe, dppp, depe, and dihydrogen substitution by the trifluoromethanesulfonate anion to give trans-[Ru(OTf)(CN)L2] or trans-[Ru(OTf)(CNH)L2]OTf□ *Journal of the Chemical Society Dalton Transactions*, **1992**, 1475-1486		51
172	Asymmetric Transfer Hydrogenation of Ketones with Well-Defined Manganese(I) PNN and PNNP Complexes. *Organometallics*, **2018**, 37, 4608-4618	3.8	49
171	New Polyhydride Anions and Proton-Hydride Hydrogen Bonding in Their Ion Pairs. X-ray Crystal Structure Determinations of Q[mer-Os(H)3(CO)(PiPr3)2], Q = [K(18-crown-6)] and Q = [K(1-aza-18-crown-6)]. *Journal of the American Chemical Society*, **1998**, 120, 13138-13147	16.4	48
170	Chemistry of ruthenium(II) monohydride and dihydride complexes containing pyridyl donor ligands including catalytic ketone H2-hydrogenation. *Inorganic Chemistry*, **2005**, 44, 2483-92	5.1	47
169	Acidic Dicationic Iron(II) Dihydrogen Complexes and Compounds Related by H(2) Substitution. *Inorganic Chemistry*, **1999**, 38, 6060-6068	5.1	47

168	Reactions of an Amido Hydrido Complex of Osmium, OsH(NHCMe2CMe2NH2)(PPh3)2: HX Addition, HX Transfer, and Ketone H2Hydrogenation. *Organometallics*, **2005**, 24, 479-481	3.8	45
167	Protonation and H2 Heterolysis Reactions of Electrophilic (5-C5R5)Ru(dfepe)(X) (R = H, Me; X = H, OTf) Complexes. *Organometallics*, **1998**, 17, 5467-5476	3.8	45
166	Reactions of elemental sulfur with tetrakis(triphenylphosphine)platinum(0). Formation of a complex containing very nucleophilic bridging sulfido ligands. *Canadian Journal of Chemistry*, **1983**, 61, 2490-2492	0.9	45
165	Symmetry aspects of H2 splitting by five-coordinate d6 ruthenium amides, and calculations on acetophenone hydrogenation, ruthenium alkoxide formation, and subsequent hydrogenolysis in a model trans-Ru(H)2(diamine)(diphosphine) system. *Inorganic Chemistry*, **2012**, 51, 10808-18	5.1	43
164	Spectroscopic and DFT Study of Ferraaziridine Complexes Formed in the Transfer Hydrogenation of Acetophenone Catalyzed Using trans-[Fe(CO)(NCMe)(PPh2C6H4CH?NCH2)2-P,N,N,P](BF4)2. *Organometallics*, **2012**, 31, 3056-3064	3.8	43
163	Probing the Effect of the Ligand X on the Properties and Catalytic Activity of the Complexes RuHX(diamine)(PPh3)2 (X = OPh, 4-SC6H4OCH3, OPPh2, OP(OEt)2, CCPh, NCCHCN, CH(COOMe)2; diamine = 2,3-Diamino-2,3-dimethylbutane, (R,R)-1,2-Diaminocyclohexane). *Organometallics*, **2006**,	3.8	43
162	Synthesis and Structure of the Chiral Dihydrogen Complex trans-[Ru(2-H2)H(R,R-Me-DuPHOS)2]PF6 and the Dinitrogen Complex trans-[Ru(N2)H(R,R-Me-DuPHOS)2]PF6 (R,R-Me-DuPHOS = 1,2-Bis((2R,5R)-2,5-dimethylphospholano)benzene). *Organometallics*, **1997**, 16, 1253-1259	3.8	42
161	From cis-dichloride complexes to dihydride complexes of the iron group metals via two successive .eta.2-dihydrogen intermediates. *Inorganic Chemistry*, **1989**, 28, 4437-4438	5.1	42
160	A modular design of ruthenium catalysts with diamine and BINOL-derived phosphinite ligands that are enantiomerically-matched for the effective asymmetric transfer hydrogenation of simple ketones. *Chemical Communications*, **2005**, 3050-2	5.8	41
159	Hydrogen/deuterium exchange reactions of an iridium dithiol complex. *Inorganic Chemistry*, **1993**, 32, 2236-2237	5.1	40
158	Stereochemical control of the exchange of hydrogen atoms between hydride and dihydrogen ligands in the complexes [M(.eta.2-H2)(H)(meso- or rac-tetraphos-1)]+, M = Fe, Os. *Journal of the American Chemical Society*, **1988**, 110, 4056-4057	16.4	40
157	Preparation of Rhenium(I) and Rhenium(II) Amine Dinitrogen Complexes and the Characterization of an Elongated Dihydrogen Species. *Inorganic Chemistry*, **1997**, 36, 3553-3558	5.1	39
156	Intermolecular Proton-Hydride Bonding in Ion Pairs: Synthesis and Structural Properties of [K(Q)][MH5(PiPr3)2] (M = Os, Ru; Q = 18-crown-6, 1-aza-18-crown-6, 1,10-diaza-18-crown-6). *Organometallics*, **2000**, 19, 834-843	3.8	39
155	Solvent transfer hydrogenation of unsaturated aldehydes to the unsaturated alcohols catalysed by hydridoiridium sulphoxide complexes. *Journal of the Chemical Society Chemical Communications*, **1978**, 929-930		39
154	Palladium(II) and Platinum(II) Complexes Featuring a Nitrile-Functionalized N-Heterocyclic Carbene Ligand. *Organometallics*, **2010**, 29, 570-581	3.8	38
153	Template synthesis of iron(II) complexes containing tridentate P-N-S, P-N-P, P-N-N, and tetradentate P-N-N-P ligands. *Inorganic Chemistry*, **2010**, 49, 1094-102	5.1	38
152	Organizing Chain Structures by Use of Proton-Hydride Bonding. The Single-Crystal X-ray Diffraction Structures of [K(Q)][Os(H)5(PiPr3)2] and [K(Q)][Ir(H)4(PiPr3)2], Q = 18-Crown-6 and 1,10-Diaza-18-crown-6. *Journal of the American Chemical Society*, **1998**, 120, 11826-11827	16.4	38
151	Competition between NH.HIr Intramolecular Proton-Hydride Interactions and NH.FBF(3)(-) or NH.O Intermolecular Hydrogen Bonds Involving [IrH(2-thiazolidinethione)(4)(PCy(3))](BF(4))(2) and Related Complexes. *Inorganic Chemistry*, **1996**, 35, 1549-1555	5.1	37

150	Coherent D2 rotational tunneling and incoherent D2 dynamics in a solid non-classical RuD2 complex studied by 2H solid state NMR spectroscopy. *Physical Chemistry Chemical Physics*, **1999**, 1, 4033-4041	3.6	36
149	A dihydrogen complex, [Os(□2-H2)(CO)(quS)(PPh3)2]+, in equilibrium with its coordinated thiol tautomer (quS = quinoline-8-thiolate). *Journal of the Chemical Society Chemical Communications*, **1995**, 625-626		36
148	Effect of a Libration or Hopping Motion of the □2-Dihydrogen Ligand on Longitudinal Nuclear Magnetic Resonance Relaxation. *Magnetic Resonance in Chemistry*, **1997**, 35, 243-250	2.1	34
147	Cyclometalated Tridentate C-N-N Ligands with an Amine or Amido Donor in Platinum(II) and Palladium(II) Complexes and a Novel Potassium Alkoxide Aggregate. *Organometallics*, **2004**, 23, 4406-4413	3.8	34
146	Cationic rhodium(I) sulfoxide complexes. Synthesis and spectroscopic properties. *Canadian Journal of Chemistry*, **1977**, 55, 2353-2359	0.9	34
145	Primary Amine Functionalized N-Heterocyclic Carbene Complexes of Iridium: Synthesis, Structure, and Catalysis. *Organometallics*, **2013**, 32, 3808-3818	3.8	33
144	2 H MAS NMR of strongly dipolar coupled deuterium pairs in transition metal dihydrides: extracting dipolar coupling and quadrupolar tensor orientations from the lineshape of spinning sidebands. *Physical Chemistry Chemical Physics*, **2000**, 2, 935-941	3.6	33
143	Mechanisms of the H- and transfer hydrogenation of polar bonds catalyzed by iron group hydrides. *Dalton Transactions*, **2018**, 47, 10809-10826	4.3	32
142	[Os(.eta.2-H2)(CO)(pyS)(PPh3)2]BF4-a stable but highly acidic dihydrogen complex. *Organometallics* , **1993**, 12, 3808-3809	3.8	32
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