Douglas B Grotjahn

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3583917/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	A General Bifunctional Catalyst for the Anti-Markovnikov Hydration of Terminal Alkynes to Aldehydes Gives Enzyme-Like Rate and Selectivity Enhancements. Journal of the American Chemical Society, 2004, 126, 12232-12233.	6.6	223
2	Extensive Isomerization of Alkenes Using a Bifunctional Catalyst:  An Alkene Zipper. Journal of the American Chemical Society, 2007, 129, 9592-9593.	6.6	217
3	Evolution of Iridium-Based Molecular Catalysts during Water Oxidation with Ceric Ammonium Nitrate. Journal of the American Chemical Society, 2011, 133, 19024-19027.	6.6	193
4	Stereoselective Alkene Isomerization over One Position. Journal of the American Chemical Society, 2012, 134, 10357-10360.	6.6	161
5	Bifunctional Organometallic Catalysts Involving Proton Transfer or Hydrogen Bonding. Chemistry - A European Journal, 2005, 11, 7146-7153.	1.7	132
6	Mild and Selective Deuteration and Isomerization of Alkenes by a Bifunctional Catalyst and Deuterium Oxide. Journal of the American Chemical Society, 2009, 131, 10354-10355.	6.6	130
7	Imidazol-2-yl Complexes of Cp*Ir as Bifunctional Ambident Reactants. Journal of the American Chemical Society, 2008, 130, 13200-13201.	6.6	120
8	Approaches to the Synthesis of (±)-Strychnine via the Cobalt-Mediated [2 + 2 + 2] Cycloaddition: Rapid Assembly of a Classic Framework. Journal of the American Chemical Society, 2001, 123, 9324-9337.	6.6	104
9	PLGA nanoparticle-mediated delivery of tumor antigenic peptides elicits effective immune responses. International Journal of Nanomedicine, 2012, 7, 1475.	3.3	100
10	Production and characterization of monoclonal anti-sphingosine-1-phosphate antibodies. Journal of Lipid Research, 2009, 50, 2245-2257.	2.0	99
11	New Flexible Synthesis of Pyrazoles with Different, Functionalized Substituents at C3 and C5. Journal of Organic Chemistry, 2002, 67, 9200-9209.	1.7	98
12	Iridium and Ruthenium Complexes of <i>N</i> -Heterocyclic Carbene- and Pyridinol-Derived Chelates as Catalysts for Aqueous Carbon Dioxide Hydrogenation and Formic Acid Dehydrogenation: The Role of the Alkali Metal. Organometallics, 2017, 36, 1091-1106.	1.1	94
13	A Labile and Catalytically Active Imidazolâ€2â€yl Fragment System. Angewandte Chemie - International Edition, 2011, 50, 631-635.	7.2	93
14	Bifunctional catalysts and related complexes: structures and properties. Dalton Transactions, 2008, , 6497.	1.6	90
15	General Catalyst Control of the Monoisomerization of 1-Alkenes to <i>trans</i> -2-Alkenes. Journal of the American Chemical Society, 2014, 136, 1226-1229.	6.6	90
16	Cobalt-mediated [2 + 2 + 2] cycloadditions of alkynes to the indole 2,3-double bond: an extremely facile entry into the novel 4a,9a-dihydro-9H-carbazole nucleus. Journal of the American Chemical Society, 1986, 108, 2091-2093.	6.6	88
17	Finding the Proton in a Key Intermediate of <i>anti</i> -Markovnikov Alkyne Hydration by a Bifunctional Catalyst. Journal of the American Chemical Society, 2008, 130, 10860-10861.	6.6	72
18	Hydrogen-Bond Acceptance of Bifunctional Ligands in an Alkyneâ^'Metal Ï€ Complex. Journal of the American Chemical Society, 2008, 130, 20-21.	6.6	72

#	Article	IF	CITATIONS
19	Single Bifunctional Ruthenium Catalyst for Oneâ€Pot Cyclization and Hydration giving Functionalized Indoles and Benzofurans. Chemistry - A European Journal, 2010, 16, 7992-7995.	1.7	71
20	The First Precise Molecular Structure of a Monomeric Transition Metal Cyanide, Copper(I) Cyanide. Journal of the American Chemical Society, 2002, 124, 5895-5901.	6.6	69
21	Controlled, Reversible Conversion of a Ketene Ligand to Carbene and CO Ligands on a Single Metal Center. Journal of the American Chemical Society, 2000, 122, 5222-5223.	6.6	67
22	First Synthesis and Structural Determination of a Monomeric, Unsolvated Lithium Amide, LiNH2. Journal of the American Chemical Society, 2001, 123, 5489-5494.	6.6	63
23	Changes in Coordination of Sterically Demanding Hybrid Imidazolylphosphine Ligands on Pd(0) and Pd(II). Journal of the American Chemical Society, 2006, 128, 438-453.	6.6	62
24	How Do Proximal Hydroxy or Methoxy Groups on the Bidentate Ligand Affect [(2,2′;6′,2"â€ᠯerpyridine)Ru(N,N)X] Waterâ€Oxidation Catalysts? Synthesis, Characterization, and Reactivi at Acidic and Nearâ€Neutral pH. European Journal of Inorganic Chemistry, 2014, 2014, 676-689.	ty1.0	61
25	Experimental and Computational Study of the Transformation of Terminal Alkynes to Vinylidene Ligands ontrans-(Chloro)bis(phosphine)Rh Fragments and Effects of Phosphine Substituents. Organometallics, 2007, 26, 3385-3402.	1.1	60
26	High Arenophilicity and Water Tolerance in Direct Derivatization of Peptides and Proteins by Metal Ï€-Coordination. Journal of the American Chemical Society, 1998, 120, 11814-11815.	6.6	58
27	Alkyne-to-Vinylidene Transformation on trans-(Cl)Rh(phosphine)2:  Acceleration by a Heterocyclic Ligand and Absence of Bimolecular Mechanism. Journal of the American Chemical Society, 2006, 128, 2798-2799.	6.6	54
28	The use of metalloids (-SiMe3,-SnR3) as protected carbanions. Tetrahedron, 1981, 37, 4069-4079.	1.0	53
29	First Direct Structural Comparison of Complexes of the Same Metal Fragment to Ketenes in Both C,C- and C,O-Bonding Modes. Journal of the American Chemical Society, 2001, 123, 8260-8270.	6.6	53
30	Cobalt-Mediated [2+2+2] Cycloaddition of Alkynes to the Enamine Double Bond: A Formal Total Synthesis of Î ³ -Lycorane. Synthesis, 1993, 1993, 579-605.	1.2	49
31	Heteroatoms moving protons: Synthetic and mechanistic studies of bifunctional organometallic catalysis. Pure and Applied Chemistry, 2010, 82, 635-647.	0.9	49
32	An unprecedented propellane-to-spirofused skeletal rearrangement upon oxidative demetalation of cyclopentadienyl cobalt-complexed polycyclic dienes: synthesis of a pentacyclic, potential precursor to strychnine. Journal of the American Chemical Society, 1990, 112, 5653-5654.	6.6	48
33	Structure of Solvent-Free, Monomeric CH3Li and CH3Na. Journal of the American Chemical Society, 1997, 119, 12368-12369.	6.6	47
34	Hydrogenâ€Bonding Pincer Complexes with Two Protic Nâ€Heterocyclic Carbenes from Direct Metalation of a 1,8â€Bis(imidazolâ€1â€yl)carbazole by Platinum, Palladium, and Nickel. Chemistry - A European Journal, 2015, 21, 10988-10992.	1.7	46
35	Reversible Carbonâ^'Carbon Double Bond Cleavage of a Ketene Ligand at a Single Iridium(I) Center: A Theoretical StudyA§. Organometallics, 2001, 20, 3938-3949.	1.1	45
36	A One-Pot Tandem Olefin Isomerization/Metathesis-Coupling (ISOMET) Reaction. ACS Catalysis, 2014, 4, 3069-3076.	5.5	45

#	Article	IF	CITATIONS
37	Influence of Carbene and Phosphine Ligands on the Catalytic Activity of Gold Complexes in the Hydroamination and Hydrohydrazination of Alkynes. ACS Catalysis, 2020, 10, 5190-5201.	5.5	43
38	Psychotomimetic N-methyl-N-isopropyltryptamines. Effects of variation of aromatic oxygen substituents. Journal of Medicinal Chemistry, 1985, 28, 892-896.	2.9	42
39	Facile Oxidative Addition of Rhodium(I) to the Acyl-Oxygen Bond of 2-((Diphenylphosphino)methyl)quinolin-8-ol Acetate. Organometallics, 1995, 14, 5171-5177.	1.1	39
40	Stable o-Quinone Methide Complexes of Iridium:  Synthesis, Structure, and Reversed Reactivity Imparted by Metal Complexation. Organometallics, 2000, 19, 1740-1748.	1.1	39
41	An Overview of Significant Achievements in Ruthenium-Based Molecular Water Oxidation Catalysis. Molecules, 2019, 24, 494.	1.7	39
42	Synthesis and Structure of Isomeric Palladium(II)â^'Pyrazole Chelate Complexes with and without an Nâ^'H Group as Hydrogen Bond Donor. Inorganic Chemistry, 2000, 39, 2080-2086.	1.9	37
43	Substituent Control of Hydrogen Bonding in Palladium(II)â^'Pyrazole Complexes. Inorganic Chemistry, 2003, 42, 3347-3355.	1.9	37
44	Double Câ^'H Activation during Functionalization of Phenyl(methyl)ketene on Iridium(I) Using Alkynes. Synthesis of 1,4-Dien-3-ones. Journal of the American Chemical Society, 2004, 126, 8866-8867.	6.6	37
45	Chiral Recognition and Resolution Mediated by Ï€â^'Ï€ Interactions: Synthesis and X-ray Structure oftrans-[(Sp,Sp)-bis(Cp*Ru)-carbazolyl][Δ-Trisphat]â€. Organometallics, 2004, 23, 4338-4341.	1.1	36
46	Structures, Mechanisms, and Results in Bifunctional Catalysis and Related Species Involving Proton Transfer. Topics in Catalysis, 2010, 53, 1009-1014.	1.3	36
47	Highly Stereoselective Formation of Cp*IrCl Complexes ofN,N-Dimethylamino Acids. Organometallics, 1996, 15, 1230-1235.	1.1	35
48	Synthesis and Reactivity of Bis(protic N-heterocyclic carbene)iridium(III) Complexes. Organometallics, 2016, 35, 3148-3153.	1.1	35
49	Cyclic (Alkyl)(amino)carbene Ligands Enable Cuâ€Catalyzed Markovnikov Protoboration and Protosilylation of Terminal Alkynes: A Versatile Portal to Functionalized Alkenes**. Angewandte Chemie - International Edition, 2021, 60, 19871-19878.	7.2	35
50	Synthesis of CH3K in the Gas Phase:Â Structural and Mechanistic Trends for Monomeric, Unsolvated CH3M and HCCM (M = Li, Na, K). Journal of the American Chemical Society, 2000, 122, 4735-4741.	6.6	34
51	Enabling Bifunctionality and Hemilability of Nâ€Heteroaryl NHC Complexes. Chemistry - A European Journal, 2011, 17, 6606-6609.	1.7	34
52	Bifunctional Imidazolylphosphine Ligands as Hydrogen Bond Donors Promote Nâ^'H and Oâ^'H Activation on Platinum. Organometallics, 2006, 25, 5693-5695.	1.1	33
53	Effects of Hindrance in N-Pyridyl Imidazolylidenes Coordinated to Iridium on Structure and Catalysis. Organometallics, 2013, 32, 6400-6409.	1.1	32
54	Supported Imidazolylphosphine Catalysts for Highly (<i>E</i>)-Selective Alkene Isomerization. Organic Letters, 2014, 16, 2818-2821.	2.4	31

Douglas B Grotjahn

#	Article	IF	CITATIONS
55	Coordination of chiral amines to coordinatively unsaturated Cpâ^—Ir-amino acid complexes allows determination of enantiomeric purity. Tetrahedron: Asymmetry, 1995, 6, 745-752.	1.8	30
56	Bifunctional Organometallic Catalysis and Reactivity Using Heterocyclic Phosphines and Metallated Heterocycles. Chemistry Letters, 2010, 39, 908-914.	0.7	30
57	Computational Study of the Extensive Role of Heterocyclic Ligands in Acetylene Hydration by a Bifunctional Organometallic Catalyst. Organometallics, 2013, 32, 6867-6870.	1.1	30
58	Gas-Phase Synthesis, Submillimeter Spectra, and Precise Structure of Monomeric, Solvent-Free CuCH3. Journal of the American Chemical Society, 2004, 126, 12621-12627.	6.6	28
59	Activated Aminocarbene Complexes of the Fischer Type: Synthesis, Structure, and Annelation Reactions. Angewandte Chemie International Edition in English, 1989, 28, 1384-1386.	4.4	27
60	Multimodal Study of Secondary Interactions in Cp*Ir Complexes of Imidazolylphosphines Bearing an NH Group. Journal of the American Chemical Society, 2010, 132, 7919-7934.	6.6	27
61	Rhodium-Stabilizedo-Quinone Methides:Â Synthesis, Structure, and Comparative Study with Their Iridium Congeners. Organometallics, 2000, 19, 5143-5148.	1.1	25
62	Dithiane chemistry. III. The addition of Grignard reagents to substituted ketene dithioacetals Tetrahedron Letters, 1978, 19, 4315-4318.	0.7	24
63	Structures of Solvent-Free, Monomeric LiCCH, NaCCH, and KCCH. Angewandte Chemie - International Edition, 1998, 37, 2678-2681.	7.2	24
64	Effects of the Heterocycle and Its Substituents on Structure and Fluxionality in Rhodium(I) and Iridium(I) Complexes with the Hindered Thiolates 6-tert-Butylpyridine-2-thiolate and 1-Alkyl-4-tert-butylimidazole-2-thiolate (alkyl = methyl andtert-butyl). Organometallics, 2006, 25, 4374-4390	1.1	24
65	Dynamic π-Bonding of Imidazolyl Substituent in a Formally 16-Electron Cp*Ru(ΰ ² - <i>P</i> , <i>N</i>) ⁺ Catalyst Allows Dramatic Rate Increases in (<i>E</i>)-Selective Monoisomerization of Alkenes. ACS Catalysis, 2019, 9, 7217-7231.	5.5	24
66	(CAAC)Copper Catalysis Enables Regioselective Three-Component Carboboration of Terminal Alkynes. ACS Catalysis, 2022, 12, 7243-7247.	5.5	21
67	A Fluorinated Dendrimer-Based Nanotechnology Platform. Investigative Radiology, 2010, 45, 641-654.	3.5	20
68	Ruthenium Complexes of 2,2′â€Bipyridineâ€6,6′â€diphosphonate Ligands for Water Oxidation. ChemCatCł 2016, 8, 3045-3049.	1.8	20
69	Phosphine Loss from Bis(phosphine)rhodium(I) η2-(C,O)-Diphenylketene Complexes Leading to η4-(C4) Coordination and Fluxionality of the Ketene. Organometallics, 1999, 18, 5614-5619.	1.1	19
70	Sequential Alkene Isomerization and Ringâ€Closing Metathesis in Production of Macrocyclic Musks from Biomass. Chemistry - A European Journal, 2018, 24, 10403-10408.	1.7	19
71	Bifunctional Catalyst Control of Alkene Isomerization. Topics in Catalysis, 2014, 57, 1483-1489.	1.3	18
72	Favoring alkene insertion over Î ² -hydride elimination: aqueous media and ligands enable a double Heck reaction on a substrate for which Î ² -hydride elimination is possible. Journal of Molecular Catalysis A, 1997, 116, 99-107.	4.8	16

#	Article	IF	CITATIONS
73	Studies of the Synthesis and Thermochemistry of Coordinatively Unsaturated Chelate Complexes (η5-C5Me5)IrL2 (L2 = TsNCH2CH2NTs, TsNCH2CO2, CO2CO2). Inorganic Chemistry, 2000, 39, 2493-2499.	1.9	15
74	A Facile, Convenient, and Green Route to (E)-Propenylbenzene Flavors and Fragrances by Alkene Isomerization. Synlett, 2015, 26, 2462-2466.	1.0	15
75	Stable Singlet Carbenes as Organic Superbases. Angewandte Chemie - International Edition, 2021, 60, 27253-27257.	7.2	15
76	Synthesis of Ethynyl-Substituted Precursors to Carbon-Nitrogen-Sulfur Extended Structures: Reactions of C3N3F3 and C2N2SCl2 with Alkali-Metal (Trimethylsilyl)acetylides. Chemistry of Materials, 1994, 6, 636-639.	3.2	14
77	A Binding Pocket for Coordinated Water Formed by the Metal Center and Two Heterocyclic Nitrogens in Chelating Bis-thioethers of the Complexes {Cp*M[Imâ€~S(CH2)2SImâ€~](H2O)}2+ (M = Rh, Ir; Imâ€~ =) Tj ETQ)զ1110.78	343 14 4 rgBT /⊖
78	Reversal of Reactivity in Diene-Complexedo-Quinone Methide Complexes:Â Insights and Explanations from ab Initio Density Functional Theory Calculations. Organometallics, 2005, 24, 4232-4240.	1.1	14
79	Catalysis of Selective Hydrogen/Deuterium Exchange at Allylic Positions Using Deuterium Oxide. Topics in Catalysis, 2010, 53, 1055-1058.	1.3	14
80	Bifunctional Chelates Optimized for Molecular MRI. Inorganic Chemistry, 2014, 53, 6554-6568.	1.9	14
81	Selective Câ^'C Bond Formation on the First Keteneâ^'Alkyne Complexes. Journal of the American Chemical Society, 1997, 119, 2958-2959.	6.6	13
82	One-Pot Formation of Functionalized Indole and Benzofuran Derivatives Using a Single Bifunctional Ruthenium Catalyst. Topics in Catalysis, 2010, 53, 1045-1047.	1.3	13
83	Designing bifunctional alkene isomerization catalysts using predictive modelling. Catalysis Science and Technology, 2017, 7, 4842-4851.	2.1	12
84	Rh ^(III) Cp* and Ir ^(III) Cp* Complexes of 1-[(4-Methyl)phenyl]-3-[(2-methyl-4â€2-R)imidazol-1-yl]triazenide (R = <i>t</i> -Bu or H): Synthesis, Structure, and Catalytic Activity. Organometallics, 2019, 38, 844-851.	1.1	12
85	Reactivity studies of pincer bis-protic N-heterocyclic carbene complexes of platinum and palladium under basic conditions. Beilstein Journal of Organic Chemistry, 2016, 12, 1334-1339.	1.3	11
86	Understanding the performance of a bisphosphonate Ru water oxidation catalyst. Dalton Transactions, 2020, 49, 14052-14060.	1.6	10
87	An Activeâ€6ite Sulfonate Group Creates a Fast Water Oxidation Electrocatalyst That Exhibits High Activity in Acid. Angewandte Chemie - International Edition, 2021, 60, 1540-1545.	7.2	10
88	Controlled oxidative addition of amino acid esters to Rh(I). Journal of Organometallic Chemistry, 1999, 589, 115-121.	0.8	9
89	Ruthenium (II) and iridium (III) complexes of N-heterocyclic carbene and pyridinol derived bidentate chelates: Synthesis, characterization, and reactivity. Inorganica Chimica Acta, 2017, 466, 442-450.	1.2	9
90	Synthesis and characterization of 5 <i>H</i> â€1,3â€dioxolo[4,5â€ <i>f</i>]indoleethylamines. Journal of Heterocyclic Chemistry, 1983, 20, 1031-1036.	1.4	7

#	Article	IF	CITATIONS
91	Oxidative addition of the C–O bond of amino acid esters to Rh(I) forming chelating acyl complexes. Inorganica Chimica Acta, 2004, 357, 3047-3056.	1.2	7
92	Origins of High Kinetic (E)-Selectivity in Alkene Isomerization by a CpRu(PN) Catalyst: a Combined Experimental and Computational Approach. ACS Catalysis, 2020, 10, 15250-15258.	5.5	7
93	X-ray crystallography and electrochemistry reveal electronic and steric effects of phosphine and phosphite ligands in complexes Rull(κ4-bda)(PR3)2 and Rull(κ3-bda)(PR3)3 (bda = 2,2′-bipyridine-6,6′-dicarboxylato). Polyhedron, 2019, 161, 63-70.	1.0	6
94	New Insights on Kinetic Versus Thermodynamic Ratios in Catalyzed Alkene Isomerization. Topics in Catalysis, 2010, 53, 1015-1018.	1.3	5
95	Unexpected synthesis and structural characterization of Pt(II)Cl2-1,5-hexadiene from reaction of allyl chloride and K2PtCl4. Inorganica Chimica Acta, 2010, 364, 272-274.	1.2	5
96	Catalyst versus Substrate Control of Forming (<i>E</i>)-2-Alkenes from 1-Alkenes Using Bifunctional Ruthenium Catalysts. Organic Process Research and Development, 2018, 22, 1672-1682.	1.3	5
97	Base-free transfer hydrogenation of aryl-ketones, alkyl-ketones and alkenones catalyzed by an IrIIICp* complex bearing a triazenide ligand functionalized with pyrazole. Inorganica Chimica Acta, 2020, 507, 119551.	1.2	5
98	Combined Effects of Metal and Ligand Capable of Accepting a Proton or Hydrogen Bond Catalyze Anti-Markovnikov Hydration of Terminal Alkynes The support of San Diego State University is acknowledged Angewandte Chemie - International Edition, 2001, 40, 3884-3887.	7.2	5
99	An Activeâ€Site Sulfonate Group Creates a Fast Water Oxidation Electrocatalyst That Exhibits High Activity in Acid. Angewandte Chemie, 2021, 133, 1564-1569.	1.6	4
100	Hydrogen bonding in the crystal structure of bis{3-[(thiomethyl)methyl]pyrazole}copper(II) perchlorate. Journal of Inorganic Biochemistry, 2001, 85, 61-65.	1.5	3
101	Cationic Protic Imidazolylidene NHC Complexes of Cp*IrCl+ and Cp*RhCl+ with a Pyridyl Tether Formed at Ambient Temperature. Inorganics, 2018, 6, 27.	1.2	3
102	Stable Singlet Carbenes as Organic Superbases. Angewandte Chemie, 0, , .	1.6	3
103	Synthesis, Characterization, Reactivity of η 3-allylPd(L)(X), Where XÂ=ÂCl and LÂ=Âlmidazolylphosphine and Their Application in Aryl Amination Reactions. Topics in Catalysis, 2014, 57, 1539-1544.	1.3	2
104	Azide Tripodal Dendrons from Behera's Amine and Their Clicked Dendrimers. Journal of Organic Chemistry, 2016, 81, 6779-6782.	1.7	2
105	A Convenient Method for Regeneration of Free Thiol from a tert-Butyl Thioether. Synlett, 2007, 2007, 2851-2854.	1.0	1
106	Cyclic (Alkyl)(amino)carbene Ligands Enable Cuâ€Catalyzed Markovnikov Protoboration and Protosilylation of Terminal Alkynes: A Versatile Portal to Functionalized Alkenes**. Angewandte Chemie, 2021, 133, 20024-20031.	1.6	1