

Axel Jacobi von Wangelin

List of Publications by Year in descending order

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126
papers

7,022
citations

53794

45
h-index

62596

80
g-index

179
all docs

179
docs citations

179
times ranked

5661
citing authors

#	ARTICLE	IF	CITATIONS
1	Coming of Age: Sustainable Iron-Catalyzed Cross-Coupling Reactions. <i>ChemSusChem</i> , 2009, 2, 396-417.	6.8	536
2	Reductive Cross-Coupling Reactions between Two Electrophiles. <i>Chemistry - A European Journal</i> , 2014, 20, 6828-6842.	3.3	535
3	Dinuclear Zn-Catalyzed Asymmetric Alkynylation of Unsaturated Aldehydes. <i>Journal of the American Chemical Society</i> , 2006, 128, 8-9.	13.7	244
4	Domino Iron Catalysis: Direct Aryl-Alkyl Cross-Coupling. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 607-610.	13.8	241
5	Mechanistic Perspectives on Organic Photoredox Catalysis for Aromatic Substitutions. <i>Accounts of Chemical Research</i> , 2016, 49, 2316-2327.	15.6	241
6	On the mechanism of photocatalytic reactions with eosin Y. <i>Beilstein Journal of Organic Chemistry</i> , 2014, 10, 981-989.	2.2	228
7	Multicomponent Coupling Reactions for Organic Synthesis: Chemoselective Reactions with Amide-Aldehyde Mixtures. <i>Chemistry - A European Journal</i> , 2003, 9, 4286-4294.	3.3	219
8	35 years of palladium-catalyzed cross-coupling with Grignard reagents: how far have we come?. <i>Chemical Society Reviews</i> , 2011, 40, 4948.	38.1	212
9	Metal-Free Carbonylations by Photoredox Catalysis. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 2270-2274.	13.8	162
10	Oxidative N-Heterocyclic Carbene Catalysis. <i>ChemCatChem</i> , 2012, 4, 937-941.	3.7	143
11	Heteroatom-Free Arene-Cobalt and Arene-Iron Catalysts for Hydrogenations. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 3722-3726.	13.8	136
12	Organocatalytic visible light mediated synthesis of aryl sulfides. <i>Chemical Communications</i> , 2013, 49, 5507.	4.1	130
13	Application of Visible-to-UV Photon Upconversion to Photoredox Catalysis: The Activation of Aryl Bromides. <i>Chemistry - A European Journal</i> , 2015, 21, 15496-15501.	3.3	127
14	Iron-Catalyzed Cross-Coupling of Alkenyl Acetates. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 10545-10549.	13.8	119
15	Dichromatic Photocatalytic Substitutions of Aryl Halides with a Small Organic Dye. <i>Chemistry - A European Journal</i> , 2018, 24, 105-108.	3.3	113
16	Electrochemiluminescence Bioassays with a Water-Soluble Luminol Derivative Can Outperform Fluorescence Assays. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 408-411.	13.8	109
17	Practical iron-catalyzed dehalogenation of aryl halides. <i>Chemical Communications</i> , 2010, 46, 6350.	4.1	107
18	Iron-Catalyzed Isomerizations of Olefins. <i>ChemCatChem</i> , 2011, 3, 1567-1571.	3.7	101

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19	Stereoselective iron-catalyzed alkyne hydrogenation in ionic liquids. <i>Chemical Communications</i> , 2014, 50, 2261-2264.	4.1	84
20	Intragel photoreduction of aryl halides by green-to-blue upconversion under aerobic conditions. <i>Chemical Communications</i> , 2015, 51, 16848-16851.	4.1	84
21	On new N-heterocyclic carbene derived alkylidene imidazolines. <i>Organic and Biomolecular Chemistry</i> , 2010, 8, 1695.	2.8	79
22	Chlorostyrenes in Iron-Catalyzed Biaryl Coupling Reactions. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 1357-1361.	13.8	78
23	Stereoselective cobalt-catalyzed halofluoroalkylation of alkynes. <i>Chemical Science</i> , 2018, 9, 1795-1802.	7.4	76
24	Alkene Hydrogenations by Soluble Iron Nanocluster Catalysts. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 3585-3589.	13.8	75
25	Iron-Catalyzed Reductive Aryl-Alkenyl Cross-Coupling Reactions. <i>ChemCatChem</i> , 2011, 3, 135-138.	3.7	74
26	Practical Iron-Catalyzed Allylations of Aryl Grignard Reagents. <i>Advanced Synthesis and Catalysis</i> , 2010, 352, 2147-2152.	4.3	69
27	A New Multicomponent Coupling of Aldehydes, Amides, and Dienophiles: An Atom-Efficient One-Pot Synthesis of Highly Substituted Cyclohexenes and Cyclohexadienes. <i>Journal of the American Chemical Society</i> , 2001, 123, 8398-8399.	13.7	68
28	Alkene Metalates as Hydrogenation Catalysts. <i>Chemistry - A European Journal</i> , 2017, 23, 3139-3151.	3.3	66
29	Ambient-Light-Mediated Copper-Catalyzed C ₁ and C ₂ Bond Formation. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 5919-5921.	13.8	65
30	Development of Zn-ProPhenol-Catalyzed Asymmetric Alkyne Addition: Synthesis of Chiral Propargylic Alcohols. <i>Chemistry - A European Journal</i> , 2012, 18, 16498-16509.	3.3	61
31	Iron(0) Particles: Catalytic Hydrogenations and Spectroscopic Studies. <i>ChemCatChem</i> , 2012, 4, 1088-1093.	3.7	58
32	Iron-catalyzed olefin hydrogenation at 1 bar H ₂ with a FeCl ₃ ·LiAlH ₄ catalyst. <i>Green Chemistry</i> , 2015, 17, 1408-1413.	9.0	58
33	Synthesis and Catalysis of Redox-Active Bis(imino)acenaphthene (BIAN) Iron Complexes. <i>ChemCatChem</i> , 2017, 9, 3203-3209.	3.7	58
34	Amine-Borane Dehydrogenation and Transfer Hydrogenation Catalyzed by Diimine Cobaltates. <i>Chemistry - A European Journal</i> , 2019, 25, 238-245.	3.3	58
35	On direct iron-catalyzed cross-coupling reactions. <i>Pure and Applied Chemistry</i> , 2010, 82, 1545-1553.	1.9	52
36	Regiocontrol in the cobalt-catalyzed hydrosilylation of alkynes. <i>Chemical Communications</i> , 2018, 54, 12322-12325.	4.1	52

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37	Hydroaminations of Alkenes: A Radical, Revised, and Expanded Version. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 11906-11908.	13.8	51
38	Visible Light Driven Hydrogen-Deuterodefunctionalization of Anilines. <i>Chemistry - A European Journal</i> , 2015, 21, 4518-4522.	3.3	49
39	Iron(0) Nanoparticle Catalysts in Organic Synthesis. <i>Current Organic Chemistry</i> , 2013, 17, 326-335.	1.6	48
40	A Synthetic Double Punch: Suzuki-Miyaura Cross-Coupling Mates with C-H Functionalization. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 3568-3570.	13.8	47
41	Iron-Catalyzed Cyclotrimerization of Terminal Alkynes by Dual Catalyst Activation in the Absence of Reductants. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8451-8454.	13.8	47
42	Combined Photoredox and Iron Catalysis for the Cyclotrimerization of Alkynes. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 13473-13478.	13.8	47
43	Cobalt-Catalyzed Hydrogenations via Olefin Cobaltate and Hydride Intermediates. <i>ACS Catalysis</i> , 2019, 9, 7596-7606.	11.2	46
44	Anilines Made Easily: From Aldehydes to Tri-, Tetra-, and Pentasubstituted Anilines in Two Steps. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 4503-4507.	13.8	44
45	Aromatic substitutions of arenediazonium salts via metal catalysis, single electron transfer, and weak base mediation. <i>Organic and Biomolecular Chemistry</i> , 2018, 16, 4942-4953.	2.8	44
46	Manganese-Catalyzed Hydroborations with Broad Scope. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16035-16043.	13.8	43
47	Selective hydroalkoxycarbonylation of enamides to N-acyl amino acid esters: synthetic applications and theoretical studies. <i>Journal of Organometallic Chemistry</i> , 2004, 689, 3685-3700.	1.8	40
48	On the quantitative recycling of Raney-Nickel catalysts on a lab-scale. <i>Green Chemistry</i> , 2007, 9, 1163.	9.0	40
49	Highly chemoselective cobalt-catalyzed biaryl coupling reactions. <i>Chemical Science</i> , 2013, 4, 776-784.	7.4	38
50	A Manganese Nanosheet: New Cluster Topology and Catalysis. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4970-4975.	13.8	38
51	Lithium amide catalyzed hydroboration of nitriles. <i>Organic Chemistry Frontiers</i> , 2020, 7, 960-966.	4.5	38
52	Facile Three-Component Coupling Procedure for the Synthesis of Substituted Tetrahydroisindole-1,3-diones from α,β -Unsaturated Aldehydes. <i>Organic Letters</i> , 2001, 3, 2895-2898.	4.6	37
53	Homogeneous vs. heterogeneous: mechanistic insights into iron group metal-catalyzed reductions from poisoning experiments. <i>Catalysis Science and Technology</i> , 2020, 10, 3502-3514.	4.1	35
54	Catalyst-Free N-Deoxygenation by Photoexcitation of Hantzsch Ester. <i>Organic Letters</i> , 2020, 22, 1316-1320.	4.6	35

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55	Redox-active BIAN-based Diimine Ligands in Metal-Catalyzed Small Molecule Syntheses**. ChemCatChem, 2022, 14, .	3.7	34
56	Metal-free radical thiolations mediated by very weak bases. Organic and Biomolecular Chemistry, 2016, 14, 11347-11352.	2.8	33
57	A flow reactor setup for photochemistry of biphasic gas/liquid reactions. Beilstein Journal of Organic Chemistry, 2016, 12, 1798-1811.	2.2	32
58	Photoredox-Catalyzed Addition of Carbamoyl Radicals to Olefins: A 1,4-Dihydropyridine Approach. Chemistry - A European Journal, 2020, 26, 8239-8243.	3.3	32
59	Unusual Coupling Reactions of Aldehydes and Alkynes: A Novel Preparation of Substituted Phthalic Acid Derivatives by Automated Synthesis. Chemistry - A European Journal, 2003, 9, 2273-2281.	3.3	30
60	Olefin-Assisted Iron-Catalyzed Alkylation of Aryl Chlorides. Advanced Synthesis and Catalysis, 2013, 355, 2197-2202.	4.3	30
61	Aromatic Chlorosulfonylation by Photoredox Catalysis. ChemSusChem, 2017, 10, 151-155.	6.8	30
62	Recyclable cobalt(0) nanoparticle catalysts for hydrogenations. Catalysis Science and Technology, 2018, 8, 2648-2653.	4.1	30
63	Synthesis of N-Acetyl- β -aminobutyric Acid via Amidocarbonylation: A Case Study. Advanced Synthesis and Catalysis, 2003, 345, 510-516.	4.3	29
64	Stereoselective Photooxidations by the Schenck Ene Reaction. ChemPhotoChem, 2018, 2, 559-570.	3.0	29
65	Olefin-Stabilized Cobalt Nanoparticles for C=C, C=O, and C=N Hydrogenations. Chemistry - A European Journal, 2018, 24, 3403-3407.	3.3	28
66	Multi-component coupling reactions of aldehydes and amides with maleic anhydride: synthesis of 7-oxo-6-azabicyclo[3.2.1]oct-2-ene-8-carboxylic acids. Tetrahedron, 2002, 58, 2381-2387.	1.9	27
67	Radical Aromatic Trifluoromethylthiolation: Photoredox Catalysis vs. Base Mediation. European Journal of Organic Chemistry, 2017, 2017, 6722-6725.	2.4	25
68	Aryl Pyrazoles from Photocatalytic Cycloadditions of Arenediazonium. Organic Letters, 2020, 22, 7219-7224.	4.6	25
69	Steric Enhancement of the Chemiluminescence of Luminols. Chemistry - A European Journal, 2015, 21, 9975-9979.	3.3	24
70	Second Generation Protocol for Multicomponent Coupling Reactions of Aldehydes, Amides and Dienophiles. Advanced Synthesis and Catalysis, 2004, 346, 970-978.	4.3	23
71	Direct Cobalt-Catalyzed Cross-Coupling Between Aryl and Alkyl Halides. Synlett, 2009, 2009, 2931-2934.	1.8	23
72	Alkene Hydrogenations by Soluble Iron Nanocluster Catalysts. Angewandte Chemie, 2017, 129, 3639-3643.	2.0	23

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73	A New Efficient Synthesis of Substituted Luminols Using Multicomponent Reactions. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2004, 59, 431-438.	0.7	22
74	From a spin-off to the advantageous use in Diels-Alder reactions: a combined synthetic, spectroscopic and computational approach to N-(dienyl)acylamines. Organic and Biomolecular Chemistry, 2004, 2, 845-851.	2.8	21
75	Photoredox-Catalyzed Synthesis of α -Amino Acid Amides by Imine Carbamoylation. Organic Letters, 2022, 24, 506-510.	4.6	21
76	Highly practical iron-catalyzed C=O cleavage reactions. Catalysis Science and Technology, 2013, 3, 2541.	4.1	19
77	Metal-free radical aromatic carbonylations mediated by weak bases. Organic and Biomolecular Chemistry, 2017, 15, 6715-6719.	2.8	19
78	Enzymatic resolution of 4-N-phenylacetylamino-derivatives obtained from multicomponent reactions using PenG amidase and in silico studies. Tetrahedron, 2004, 60, 683-691.	1.9	18
79	Multicomponent Reaction of Aldehydes, Anhydrides, and Dienophiles: Synthesis of α -Butterfly-Like Diazatetradecenes. European Journal of Organic Chemistry, 2005, 2005, 107-113.	2.4	17
80	An easy and general protocol for multicomponent coupling reactions of aldehydes, amides, and dienophiles. Tetrahedron, 2006, 62, 10962-10967.	1.9	17
81	The Aminohydroxylation of Alkenes Breaks New Ground. ChemCatChem, 2010, 2, 1381-1383.	3.7	17
82	Elektrochemilumineszenz-Bioassays können Fluoreszenzassays mithilfe eines wasserlöslichen Luminolderivats überbieten. Angewandte Chemie, 2018, 130, 414-418.	2.0	17
83	Iron-catalysed Suzuki biaryl couplings. Nature Catalysis, 2018, 1, 377-378.	34.4	17
84	Stereoselective Alkyne Hydrogenation by using a Simple Iron Catalyst. ChemSusChem, 2019, 12, 3864-3870.	6.8	17
85	Visible light-mediated photo-oxygenation of arylcyclohexenes. Organic Chemistry Frontiers, 2019, 6, 2877-2883.	4.5	16
86	Stereoselective Chromium-Catalyzed Semi-Hydrogenation of Alkynes. ChemCatChem, 2020, 12, 5359-5363.	3.7	16
87	On the Dual Role of N-Heterocyclic Carbenes as Bases and Nucleophiles in Reactions with Organic Halides. Synthesis, 2011, 2011, 3784-3795.	2.3	15
88	Synthesis and Reactivity of an Early-Transition-Metal Alkynyl Cubane Mn_4C_4 Cluster. Angewandte Chemie - International Edition, 2019, 58, 3466-3470.	13.8	15
89	Bimetallic Co/Al nanoparticles in an ionic liquid: synthesis and application in alkyne hydrogenation. New Journal of Chemistry, 2019, 43, 16583-16594.	2.8	15
90	Iron-Catalyzed Synthesis of Cyclopropyl Halides. ChemCatChem, 2013, 5, 706-710.	3.7	14

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91	Iron-Catalyzed Cyclotrimerization of Terminal Alkynes by Dual Catalyst Activation in the Absence of Reductants. <i>Angewandte Chemie</i> , 2017, 129, 8571-8574.	2.0	14
92	Heterogeneous Olefin Hydrogenation Enabled by a Highly-Reduced Nickel(II) Catalyst Precursor. <i>Chemistry - A European Journal</i> , 2020, 26, 6113-6117.	3.3	14
93	A Manganese Nanosheet: New Cluster Topology and Catalysis. <i>Angewandte Chemie</i> , 2018, 130, 5064-5069.	2.0	13
94	The Role of Organoferrates in Iron-Catalyzed Cross-Couplings. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5434-5437.	13.8	12
95	Carbonylations of Aldehydes. , 2006, , 207-221.		11
96	Practical three-component synthesis of crowded arenes with donor-acceptor substitution. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 7224.	2.8	11
97	An entirely solvent-free photooxygenation of olefins under continuous flow conditions. <i>Green Chemistry</i> , 2020, 22, 2359-2364.	9.0	11
98	On the Photophysical Properties of New Luminol Derivatives and their Synthetic Phthalimide Precursors. <i>Journal of Fluorescence</i> , 2010, 20, 657-664.	2.5	10
99	A Carbene-Extended ATRA Reaction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 17241-17245.	13.8	10
100	Manganese-Catalyzed Hydroborations with Broad Scope. <i>Angewandte Chemie</i> , 2021, 133, 16171-16179.	2.0	10
101	Selective Benzylic CH ₂ Borylations by Tandem Cobalt Catalysis. <i>Angewandte Chemie - International Edition</i> , 2021, , .	13.8	10
102	Modular synthesis of cyclic cis- and trans-1,2-diamine derivatives. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 5267-5277.	2.8	9
103	Next generation luminol derivative as powerful benchmark probe for chemiluminescence assays. <i>Analytica Chimica Acta</i> , 2021, 1188, 339161.	5.4	8
104	Light-Driven Waste-to-Value Upcycling: Bio-Based Polyols and Polyurethanes from the Photo-Oxygenation of Cardanols. <i>ChemSusChem</i> , 2021, 14, 3325-3332.	6.8	7
105	Polynuclear Iron(II) Pyridonates: Synthesis and Reactivity of Fe ₄ and Fe ₅ Clusters. <i>Inorganic Chemistry</i> , 2022, 61, 6149-6159.	4.0	6
106	Thieme Journal Awardees - Where Are They Now? On Cobalt-Catalyzed Biaryl Coupling Reactions. <i>Synlett</i> , 2009, 2009, 2919-2923.	1.8	5
107	Synthesis and Reactivity of an Early-Transition-Metal Alkynyl Cubane Mn ₄ C ₄ Cluster. <i>Angewandte Chemie</i> , 2019, 131, 3504-3508.	2.0	4
108	The Amidocarbonylation of Aldehydes. , 0, , 133-148.		4

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109	Iron-catalysed allylation-hydrogenation sequences as masked alkyl-alkyl cross-couplings. RSC Advances, 2019, 9, 31217-31223.	3.6	3
110	Combined Photoredox and Iron Catalysis for the Cyclotrimerization of Alkynes. Angewandte Chemie, 2020, 132, 13575-13580.	2.0	3
111	Selective Benzylic C-H Borylations by Tandem Cobalt Catalysis. Angewandte Chemie, 2022, 134, .	2.0	3
112	Zur Rolle von Organoferraten in eisenkatalysierten Kreuzkupplungen. Angewandte Chemie, 2020, 132, 5474-5477.	2.0	3
113	Hydroxymethylpyridine Catalysts for the Enantioselective Alkynylation of Aldehydes. Synlett, 2007, 2007, 2574-2578.	1.8	2
114	A Carbene-Extended ATRA Reaction. Angewandte Chemie, 2019, 131, 17401-17405.	2.0	2
115	Heterogeneous Olefin Hydrogenation Enabled by a Highly-Reduced Nickel(II) Catalyst Precursor. Chemistry - A European Journal, 2020, 26, 6089-6089.	3.3	2
116	Zinc-Mediated Reactions. , 0, , 519-551.		2
117	BIAN-Aluminium-Catalyzed Imine Hydrogenation. ChemCatChem, 0, , .	3.7	2
118	Three-Component Reactions of α - and β -Bromo Aldehydes with Amides and Dienophiles - An Easy Way to Versatile 1-Amido-2-Cyclohexenes. Synlett, 2007, 2007, 1085-1090.	1.8	1
119	Bismuth Reagents and Catalysts in Organic Synthesis. , 0, , 379-394.		1
120	Multicomponent Coupling Reactions for Organic Synthesis: Chemoselective Reactions with Amide-Aldehyde Mixtures. ChemInform, 2003, 34, no.	0.0	0
121	Anilines Made Easily: From Aldehydes to Tri-, Tetra-, and Pentasubstituted Anilines in Two Steps.. ChemInform, 2004, 35, no.	0.0	0
122	Enzymatic Resolution of 4-N-Phenylacetyl-amino-Derivatives Obtained from Multicomponent Reactions Using PenG Amidase and in Silico Studies.. ChemInform, 2004, 35, no.	0.0	0
123	A New Efficient Synthesis of Substituted Luminols Using Multicomponent Reactions.. ChemInform, 2004, 35, no.	0.0	0
124	The Amidocarbonylation of Aldehydes. ChemInform, 2005, 36, no.	0.0	0
125	Zinc-Mediated Reactions. ChemInform, 2005, 36, no.	0.0	0
126	Planar Iron Hydride Nanoclusters: Combined Spectroscopic and Theoretical Insights into Structures and Building Principles. ChemistryOpen, 2021, 10, 265-271.	1.9	0