

Rainer Mahrwald

List of Publications by Year in descending order

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80
papers

2,805
citations

172386

29
h-index

182361

51
g-index

100
all docs

100
docs citations

100
times ranked

2582
citing authors

#	ARTICLE	IF	CITATIONS
1	Diastereoselection in Lewis-Acid-Mediated Aldol Additions. <i>Chemical Reviews</i> , 1999, 99, 1095-1120.	23.0	439
2	Modern Aldol Methods for the Total Synthesis of Polyketides. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 7506-7525.	7.2	344
3	Recent Advances in Organocatalytic Methods for Asymmetric C-C Bond Formation. <i>Chemistry - A European Journal</i> , 2013, 19, 14346-14396.	1.7	194
4	Asymmetric Histidine-Catalyzed Cross-Aldol Reactions of Enolizable Aldehydes: Access to Defined Configured Quaternary Stereogenic Centers. <i>Journal of the American Chemical Society</i> , 2009, 131, 16642-16643.	6.6	102
5	Amine-Catalyzed Direct Aldol Addition. <i>Journal of the American Chemical Society</i> , 2007, 129, 7258-7259.	6.6	90
6	Total Syntheses of Carbohydrates: Organocatalyzed Aldol Additions of Dihydroxyacetone. <i>Chemistry - A European Journal</i> , 2008, 14, 40-48.	1.7	76
7	Photoisomerization Dynamics of Stiff-Stilbene in Solution. <i>Journal of Physical Chemistry B</i> , 2014, 118, 1389-1402.	1.2	64
8	Stereoselective Direct Amine-Catalyzed Decarboxylative Aldol Addition. <i>Organic Letters</i> , 2011, 13, 1878-1880.	2.4	61
9	Insight into the mechanism of direct catalytic aldol addition mediated by ambifunctional titanium complexes. <i>Tetrahedron Letters</i> , 2002, 43, 4459-4461.	0.7	59
10	The Aldol-Tishchenko Reaction: A Tool in Stereoselective Synthesis. <i>Current Organic Chemistry</i> , 2003, 7, 1713-1723.	0.9	56
11	Titanium-Mediated Aldol-Tishchenko Reaction: A Stereoselective Synthesis of Differentiated anti 1,3-Diol Monoesters. <i>Synthesis</i> , 1996, 1996, 1087-1089.	1.2	53
12	Histidine-Catalyzed Asymmetric Aldol Addition of Enolizable Aldehydes: Insights into its Mechanism. <i>Journal of Organic Chemistry</i> , 2012, 77, 2310-2330.	1.7	49
13	Titanium(IV) Alkoxide Ligand Exchange with β -Hydroxy Acids: The Enantioselective Aldol Addition. <i>Organic Letters</i> , 2000, 2, 4011-4012.	2.4	47
14	Aldol addition of aldehydes - A stereoselective approach to syn-3-hydroxyaldehydes. <i>Tetrahedron Letters</i> , 1997, 38, 4543-4544.	0.7	46
15	TiCl ₄ -Mediated Nucleophilic Substitution of Propargylic Esters. <i>Tetrahedron</i> , 2000, 56, 7463-7468.	1.0	46
16	Highly Regioselective Lewis Acid-Mediated Aldol Additions at the More Encumbered β -Side of Unsymmetrical Ketones. <i>Journal of the American Chemical Society</i> , 1998, 120, 413-414.	6.6	42
17	Direct Glycosylation of Unprotected and Unactivated Carbohydrates under Mild Conditions. <i>Organic Letters</i> , 2012, 14, 792-795.	2.4	39
18	Isoleucine-Catalyzed Direct Asymmetric Aldol Addition of Enolizable Aldehydes. <i>Organic Letters</i> , 2012, 14, 2180-2183.	2.4	37

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19	TiCl ₄ -mediated amination of propargylic esters. <i>Tetrahedron Letters</i> , 2001, 42, 1655-1656.	0.7	36
20	Enantioselective Direct Aldol-Tishchenko Reaction: Access to Chiral Stereopentads. <i>Organic Letters</i> , 2005, 7, 4499-4501.	2.4	36
21	Observing the Hydration Layer of Trehalose with a Linked Molecular Terahertz Probe. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1845-1849.	2.1	35
22	Multicomponent Cascade Reactions of Unprotected Carbohydrates and Amino Acids. <i>Organic Letters</i> , 2015, 17, 2606-2609.	2.4	35
23	Catalytic, Diastereoselective Aldol Reactions Using Titanium(IV) Halides. <i>Chemische Berichte</i> , 1995, 128, 919-921.	0.2	34
24	Catalyst-Free Aldol Additions of 1,3-Dicarbonyl Compounds. <i>Advanced Synthesis and Catalysis</i> , 2008, 350, 2877-2880.	2.1	34
25	Unusual Highly Regioselective Direct Aldol Additions with a Moisture-Resistant and Highly Efficient Titanium Catalyst. <i>Organic Letters</i> , 2006, 8, 281-284.	2.4	32
26	Stereoselective amine-catalyzed carbohydrate chain elongation. <i>Chemical Communications</i> , 2012, 48, 5304.	2.2	32
27	Direct One-Pot Synthesis of Nucleosides from Unprotected or 5-O-Monoprotected α -D-Ribose. <i>Organic Letters</i> , 2015, 17, 4604-4607.	2.4	32
28	Stereocontrol in Aldol Addition - Synthesis of syn and anti 3-Hydroxy Aldehydes. <i>Synthesis</i> , 1998, 1998, 262-264.	1.2	31
29	Tetranuclear BINOL-Titanium Complex in Selective Direct Aldol Additions. <i>Journal of Organic Chemistry</i> , 2008, 73, 813-819.	1.7	31
30	Long-lived perpendicular conformation in the photoisomerization path of 1,1'-dimethylstilbene and 1,1'-diethylstilbene. <i>Chemical Physics Letters</i> , 2012, 544, 39-42.	1.2	31
31	Chemoenzymatic Synthesis of Vitamin B ₅ -Intermediate (R)-Pantolactone via Combined Asymmetric Organo- and Biocatalysis. <i>Journal of Organic Chemistry</i> , 2015, 80, 3387-3396.	1.7	27
32	Ti(OiPr) ₄ -Mediated nucleophilic substitution of propargylic esters. <i>Tetrahedron</i> , 2002, 58, 9847-9851.	1.0	25
33	Synthesis of propargylic ethers via Lewis-acid mediated nucleophilic substitution of propargylic esters. <i>Tetrahedron Letters</i> , 1999, 40, 5989-5990.	0.7	24
34	Organocatalyzed Knoevenagel-addition: simple access to carbon chain-elongated branched carbohydrates. <i>Tetrahedron</i> , 2013, 69, 4302-4310.	1.0	24
35	The long underestimated carbonyl function of carbohydrates: an organocatalyzed shot into carbohydrate chemistry. <i>Chemical Communications</i> , 2015, 51, 13868-13877.	2.2	23
36	Tuning Stilbene Photochemistry by Fluorination: State Reordering Leads to Sudden Polarization near the Franck-Condon Region. <i>Journal of the American Chemical Society</i> , 2017, 139, 15265-15274.	6.6	23

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37	Organocatalyzed cascade reactions of carbohydrates – a direct access to C-glycosides. <i>Chemical Communications</i> , 2014, 50, 817-819.	2.2	22
38	Dual-fluorescence pH probe for bio-labelling. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 30590-30597.	1.3	22
39	Decarboxylative Mannich Reactions. <i>European Journal of Organic Chemistry</i> , 2013, 2013, 1046-1049.	1.2	20
40	Carotene Revisited by Transient Absorption and Stimulated Raman Spectroscopy. <i>ChemPhysChem</i> , 2015, 16, 3824-3835.	1.0	18
41	On the Palladium(II)-Catalysed Oxidative Rearrangement of Propargylic Acetates. <i>Advanced Synthesis and Catalysis</i> , 2004, 346, 483-485.	2.1	17
42	A stereoselective and novel approach to the synthesis of 1,3-diols: simple control of diastereoselectivity. <i>Chemical Communications</i> , 1998, , 2273-2274.	2.2	16
43	Asymmetric Acid-Catalyzed Meerwein-Ponndorf-Verley Aldol Reactions of Enolizable Aldehydes. <i>Organic Letters</i> , 2010, 12, 1660-1663.	2.4	16
44	Amine-Catalyzed Cascade Reactions of Unprotected and Unactivated Carbohydrates: Direct Access to C-Glycosides. <i>Synthesis</i> , 2015, 47, 2249-2255.	1.2	16
45	Catalyst-free tandem aldol condensation/Michael addition of 1,3-cyclohexanediones with enolizable aldehydes. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 3949-3951.	1.0	15
46	Organocatalytic methods for CC bond formation. <i>Drug Discovery Today: Technologies</i> , 2013, 10, e29-e36.	4.0	15
47	Rotamer-Specific Photoisomerization of Difluorostilbenes from Transient Absorption and Transient Raman Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2018, 122, 1049-1059.	1.2	15
48	On the mechanism of directed, TiCl ₄ -mediated aldol addition – an easy access to substituted 2,4-furandiols. <i>Tetrahedron Letters</i> , 2001, 42, 6843-6845.	0.7	14
49	Multinuclear enantiopure titanium self-assembly complexes – synthesis, characterization and application to organic synthesis. <i>Applied Organometallic Chemistry</i> , 2007, 21, 139-145.	1.7	13
50	Amine-catalyzed cascade reactions of ketoses with 1,3-dicarbonyl compounds. <i>RSC Advances</i> , 2015, 5, 45571-45574.	1.7	13
51	Effect of a Tertiary Butyl Group on Polar Solvation Dynamics in Aqueous Solution: Femtosecond Fluorescence Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2017, 121, 9631-9638.	1.2	13
52	Enantioselective Equilibration – Access to Chiral Aldol Adducts of Mandelic Acid Esters. <i>Organic Letters</i> , 2006, 8, 5353-5355.	2.4	12
53	Four into One: Organocatalyzed Stereoselective Conjugate Addition of Unprotected and Unactivated Carbohydrates. <i>Organic Letters</i> , 2014, 16, 5474-5477.	2.4	12
54	Stereoselective one-pot synthesis of highly differently substituted thiochromans. <i>Tetrahedron Letters</i> , 2009, 50, 6466-6468.	0.7	10

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55	Retropinacol/Cross-Pinacol Coupling Reactions – A Catalytic Access to 1,2-Unsymmetrical Diols. <i>Advanced Synthesis and Catalysis</i> , 2012, 354, 2648-2652.	2.1	10
56	A One-Pot Cross-Pinacol Coupling/Rearrangement Procedure. <i>Helvetica Chimica Acta</i> , 2012, 95, 1970-1975.	1.0	10
57	Photoisomerization pathways and Raman activity of 1,1-difluorostilbene. <i>Journal of Chemical Physics</i> , 2017, 146, 044501.	1.2	10
58	Amine-Catalyzed Cascade Reactions of Unprotected Aldoses – An Operationally Simple Access to Defined Configured Stereotetrads or Stereopentads. <i>ACS Catalysis</i> , 2016, 6, 5549-5552.	5.5	9
59	Titanium(IV) alkoxides with Mono- and Bidentate Ligands. <i>Journal für Praktische Chemie, Chemiker-Zeitung</i> , 1996, 338, 583-585.	0.5	8
60	LiClO ₄ -Activated stereo- and regioselective alkylation of aldehydes. <i>Tetrahedron</i> , 2004, 60, 993-999.	1.0	7
61	Aldol Reactions. , 2006, , 51-81.		7
62	Cascade Reactions of Unprotected Ketoses with Ketones – A Stereoselective Access to C-Glycosides. <i>European Journal of Organic Chemistry</i> , 2016, 2016, 5309-5320.	1.2	7
63	Transient Rotamerism and Photoisomerization Dynamics of <i>trans</i> - and <i>cis</i> -Naphthylstilbene. <i>Journal of Physical Chemistry B</i> , 2020, 124, 1049-1064.	1.2	7
64	Enantioselective C-C Bond Formation with Titanium(IV) Alkoxides-an Unusual Alkylation. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 1361-1363.	7.2	6
65	A simple approach to 5,5-bis(1,3-dioxolan-4-ones) of tartaric acids. <i>Tetrahedron: Asymmetry</i> , 2004, 15, 803-806.	1.8	6
66	Multicomponent Cascade Reactions of Unprotected Ketoses and Amino Acids – Access to a Defined Configured Quaternary Stereogenic Center. <i>Journal of Organic Chemistry</i> , 2015, 80, 10849-10865.	1.7	6
67	Matched/Mismatched Cases in Proline-Catalyzed Cascade Reactions with Carbohydrates: A Computational Insight into the Role of <i>d</i> - and <i>l</i> -Proline. <i>Journal of Organic Chemistry</i> , 2019, 84, 1201-1217.	1.7	5
68	Operationally Simple and Selective One-Pot Synthesis of Hydroxyphenones: A Facile Access to SNARF Dyes. <i>Synthesis</i> , 2016, 48, 1217-1225.	1.2	3
69	Enantioselective C-C-Bindungsknüpfung mit Titan(IV)-alkoxiden – eine ungewöhnliche Alkylierung Diese Arbeit wurde von der Deutschen Forschungsgemeinschaft gefördert.. <i>Angewandte Chemie</i> , 2002, 114, 1423.	1.6	2
70	Enantioselective C-C-Bindungsknüpfung mit Titan(IV)-alkoxiden – eine ungewöhnliche Alkylierung. <i>Angewandte Chemie</i> , 2003, 115, 2547-2547.	1.6	2
71	Enantioselective C-C Bond Formation with Titanium(IV) Alkoxides – an Unusual Alkylation. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 2443-2443.	7.2	2
72	2.13 Selected Diastereoselective Reactions: Aldoltype Additions. , 2012, , 370-397.		2

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73	Decarboxylative Cascade Reactions of Dihydroxyfumaric Acid: A Preparative Approach to the Glyoxylate Scenario. <i>Organic Letters</i> , 2016, 18, 2950-2953.	2.4	2
74	Logic of organic chemistry. <i>ChemTexts</i> , 2016, 2, 1.	1.0	1
75	Ti(OiPr) ₄ -Mediated Nucleophilic Substitution of Propargylic Esters.. <i>ChemInform</i> , 2003, 34, no.	0.1	0
76	LiClO ₄ -Activated Stereo- and Regioselective Alkylation of Aldehydes.. <i>ChemInform</i> , 2004, 35, no.	0.1	0
77	TiCl ₄ -Complexation by Mandelic Acid Methyl ester. <i>Analytical Sciences: X-ray Structure Analysis Online</i> , 2008, 24, X233-X234.	0.1	0
78	Retropinacol/Cross-pinacol Coupling Reactions - A Catalytic Access to 1,2-Unsymmetrical Diols. <i>Journal of Visualized Experiments</i> , 2014, , .	0.2	0
79	Organocatalyzed Glycosylation Reactions of Carbohydrates. <i>Springer Briefs in Molecular Science</i> , 2015, , 67-93.	0.1	0
80	Total Synthesis of Carbohydrates. <i>Springer Briefs in Molecular Science</i> , 2015, , 7-34.	0.1	0