Michael Rauch

List of Publications by Year
in descending order

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29	1,174	394421 19	477307 29
papers	citations	h-index	g-index

29	29	29	1047
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electrophotocatalysis with a Trisaminocyclopropenium Radical Dication. Angewandte Chemie - International Edition, 2019, 58, 13318-13322.	13.8	191
2	Zinc and Magnesium Catalysts for the Hydrosilylation of Carbon Dioxide. Journal of the American Chemical Society, 2017, 139, 18162-18165.	13.7	128
3	Synthesis, Structure, and Reactivity of a Terminal Magnesium Hydride Compound with a Carbatrane Motif, [Tism^{PrⁱBenz}]MgH: A Multifunctional Catalyst for Hydrosilylation and Hydroboration. Journal of the American Chemical Society, 2017, 139, 13264-13267.	13.7	107
4	Hydrogenative Depolymerization of Nylons. Journal of the American Chemical Society, 2020, 142, 14267-14275.	13.7	101
5	Highly efficient additive-free dehydrogenation of neat formic acid. Nature Catalysis, 2021, 4, 193-201.	34.4	92
6	Selective Conversion of Carbon Dioxide to Formaldehyde via a Bis(silyl)acetal: Incorporation of Isotopically Labeled C1 Moieties Derived from Carbon Dioxide into Organic Molecules. Journal of the American Chemical Society, 2019, 141, 17754-17762.	13.7	68
7	Electrophotocatalysis with a Trisaminocyclopropenium Radical Dication. Angewandte Chemie, 2019, 131, 13452-13456.	2.0	43
8	Metalâ€“Ligand Cooperation Facilitates Bond Activation and Catalytic Hydrogenation with Zinc Pincer Complexes. Journal of the American Chemical Society, 2020, 142, 14513-14521.	13.7	41
9	Selective Room-Temperature Hydrogenation of Amides to Amines and Alcohols Catalyzed by a Ruthenium Pincer Complex and Mechanistic Insight. ACS Catalysis, 2020, 10, 5511-5515.	11.2	36
10	Efficient Base-Free Aqueous Reforming of Methanol Homogeneously Catalyzed by Ruthenium Exhibiting a Remarkable Acceleration by Added Catalytic Thiol. Journal of the American Chemical Society, 2021, 143, 17284-17291.	13.7	36
11	Formation of thioesters by dehydrogenative coupling of thiols and alcohols with H2 evolution. Nature Catalysis, 2020, 3, 887-892.	34.4	32
12	Tris[(1-isopropylbenzimidazol-2-yl)dimethylsilyl]methyl metal complexes, [Tism^{PriBenz}]M: a new class of metallacarbatranes, isomerization to a tris(N-heterocyclic carbene) derivative, and evidence for an inverted ligand field. Chemical Science, 2017, 8, 4465-4474.	7.4	27
13	Catalytic Oxidative Deamination by Water with H₂ Liberation. Journal of the American Chemical Society, 2020, 142, 20875-20882.	13.7	26
14	Synthesis, structure and reactivity of a terminal magnesium fluoride compound, [TpBut,Me]MgF: hydrogen bonding, halogen bonding and Câ€“F bond formation. Chemical Science, 2016, 7, 142-149.	7.4	25
15	Reactivity of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mo stretchy="false">[</mml:mo><mml:msup><mml:mrow><mml:mtext>Tism</mml:mtext></mml:mrow><mml:mrow><mml:msup><mml:mo stretchy="false">]</mml:mo></mml:mrow></mml:math>MgMe towards secondary amines and terminal alkynes. Catalytic dehydrocoupling with hydrosilanes. Inorganica Chimica Acta, 2019, 494, 271-279.	2.4	25
16	Catalytic Hydrogenation of Thioesters, Thiocarbamates, and Thioamides. Journal of the American Chemical Society, 2020, 142, 21628-21633.	13.7	22
17	Homogeneous Reforming of Aqueous Ethylene Glycol to Glycolic Acid and Pure Hydrogen Catalyzed by Pincerâ€Ruthenium Complexes Capable of Metalâ€“Ligand Cooperation. Chemistry - A European Journal, 2021, 27, 4715-4722.	3.3	22
18	HÂ· Transfer-Initiated Synthesis of Î³-Lactams: Interpretation of Cycloisomerization and Hydrogenation Ratios. ACS Catalysis, 2019, 9, 10294-10298.	11.2	21

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19	Synthesis, structure and reactivity of [Tm^{But}]ZnH, a monomeric terminal zinc hydride compound in a sulfur-rich coordination environment: access to a heterobimetallic compound. Chemical Communications, 2016, 52, 2358-2361.	4.1	20
20	Synthesis and Structural Characterization of Tris(isopropylbenzimidazol-2-ylthio)methyl Zinc Complexes, [Titm^{PrⁱBenz}]ZnX: Modulation of Transannular Znâ€“C Interactions. Organometallics, 2018, 37, 1708-1718.	2.3	20
21	Synthesis of a terminal zinc hydride compound, [<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mtext>T</mml:mtext><mml:msup><mml:mrow><mml:mtext>p</mml:mtext></mml:mrow><m from a hydroxide derivative, [<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML. Polyhedron, 2016, 103, 135-140.	2.2	17
22	Oxidizable Ketones: Persistent Radical Cations from the Singleâ€Electron Oxidation of 2,3â€Diaminocyclopropenones.. Angewandte Chemie - International Edition, 2019, 58, 8049-8052.	13.8	17
23	Mechanistic Investigations of Ruthenium Catalyzed Dehydrogenative Thioester Synthesis and Thioester Hydrogenation. ACS Catalysis, 2021, 11, 2795-2807.	11.2	17
24	Synthesis, Structure, and Reactivity of a Terminal Cadmium Hydride Compound, [Î²³-Tism^{PrⁱBenz}]CdH. Journal of the American Chemical Society, 2021, 143, 10553-10559.	13.7	12
25	Insertion of CS₂into the Mgâ€“H bond: synthesis and structural characterization of the magnesium dithioformate complex, [Tism^{PriBenz}]Mg(Î²²-S₂CH). Dalton Transactions, 2018, 47, 12596-12605.	3.3	8
26	Insertion of Isonitriles into the Mâ€“C Bonds of Group 4 Dialkyl Complexes. Journal of the American Chemical Society, 2018, 140, 8980-8989.	13.7	8
27	Dehydrogenative ester synthesis from enol ethers and water with a ruthenium complex catalyzing two reactions in synergy. Green Chemistry, 2022, 24, 1481-1487.	9.0	8
28	Oxidizable Ketones: Persistent Radical Cations from the Singleâ€Electron Oxidation of 2,3â€Diaminocyclopropenones.. Angewandte Chemie, 2019, 131, 8133-8136.	2.0	2
29	Synthesis, Characterization, and Catalytic Activity of Bimetallic Ti/Cr Complexes. Organometallics, 2020, 39, 4592-4598.	2.3	2