Alain Goeppert

List of Publications by Year
in descending order

60 papers	9,795 citations	94433 37 h-index	133252 59 g-index
67 all docs	67 docs citations	67 times ranked	10008 citing authors

#	Article	IF	Citations
1	Chemical Recycling of Carbon Dioxide to Methanol and Dimethyl Ether: From Greenhouse Gas to Renewable, Environmentally Carbon Neutral Fuels and Synthetic Hydrocarbons. Journal of Organic Chemistry, 2009, 74, 487-498.	3.2	1,320
2	Anthropogenic Chemical Carbon Cycle for a Sustainable Future. Journal of the American Chemical Society, 2011, 133, 12881-12898.	13.7	1,159
3	Recycling of carbon dioxide to methanol and derived products â€“ closing the loop. Chemical Society Reviews, 2014, 43, 7995-8048.	38.1	1,125
4	Air as the renewable carbon source of the future: an overview of CO2 capture from the atmosphere. Energy and Environmental Science, 2012, 5, 7833.	30.8	549
5	Photocatalytic Conversion of CO₂ to Hydrocarbon Fuels via Plasmon-Enhanced Absorption and Metallic Interband Transitions. ACS Catalysis, 2011, 1, 929-936.	11.2	498
6	Conversion of CO₂ from Air into Methanol Using a Polyamine and a Homogeneous Ruthenium Catalyst. Journal of the American Chemical Society, 2016, 138, 778-781.	13.7	458
7	Carbon Dioxide Capture from the Air Using a Polyamine Based Regenerable Solid Adsorbent. Journal of the American Chemical Society, 2011, 133, 20164-20167.	13.7	428
8	Bi-reforming of Methane from Any Source with Steam and Carbon Dioxide Exclusively to Metgas (COâ€“2H₂) for Methanol and Hydrocarbon Synthesis. Journal of the American Chemical Society, 2013, 135, 648-650.	13.7	237
9	Nanostructured silica as a support for regenerable high-capacity organoamine-based CO2 sorbents. Energy and Environmental Science, 2010, 3, 1949.	30.8	217
10	Integrated CO₂ Capture and Conversion to Formate and Methanol: Connecting Two Threads. Accounts of Chemical Research, 2019, 52, 2892-2903.	15.6	210
11	Manganese-Catalyzed Sequential Hydrogenation of CO₂ to Methanol via Formamide. ACS Catalysis, 2017, 7, 6347-6351.	11.2	203
12	Integrative CO₂ Capture and Hydrogenation to Methanol with Reusable Catalyst and Amine: Toward a Carbon Neutral Methanol Economy. Journal of the American Chemical Society, 2018, 140, 1580-1583.	13.7	203
13	Advances in catalytic homogeneous hydrogenation of carbon dioxide to methanol. Journal of CO2 Utilization, 2018, 23, 212-218.	6.8	154
14	Hydroxide Based Integrated CO₂ Capture from Air and Conversion to Methanol. Journal of the American Chemical Society, 2020, 142, 4544-4549.	13.7	146
15	Easily Regenerable Solid Adsorbents Based on Polyamines for Carbon Dioxide Capture from the Air. ChemSusChem, 2014, 7, 1386-1397.	6.8	133
16	CO₂capture by amines in aqueous media and its subsequent conversion to formate with reusable ruthenium and iron catalysts. Green Chemistry, 2016, 18, 5831-5838.	9.0	132
17	Single Step Bi-reforming and Oxidative Bi-reforming of Methane (Natural Gas) with Steam and Carbon Dioxide to Metgas (CO-2H₂) for Methanol Synthesis: Self-Sufficient Effective and Exclusive Oxygenation of Methane to Methanol with Oxygen. Journal of the American Chemical Society, 2015, 137, 8720-8729.	13.7	128
18	Mechanistic Insights into Ruthenium-Pincer-Catalyzed Amine-Assisted Homogeneous Hydrogenation of CO₂ to Methanol. Journal of the American Chemical Society, 2019, 141, 3160-3170.	13.7	123

#	ARTICLE	IF	CITATIONS
19	Amineâ€Free Reversible Hydrogen Storage in Formate Salts Catalyzed by Ruthenium Pincer Complex without pH Control or Solvent Change. ChemSusChem, 2015, 8, 1442-1451.	6.8	107
20	Ionic Liquid and Solid HF Equivalent Amine-Poly(Hydrogen Fluoride) Complexes Effecting Efficient Environmentally Friendly Isobutaneâ˘'Isobutylene Alkylation. Journal of the American Chemical Society, 2005, 127, 5964-5969.	13.7	106
21	Efficient Reversible Hydrogen Carrier System Based on Amine Reforming of Methanol. Journal of the American Chemical Society, 2017, 139, 2549-2552.	13.7	102
22	Beyond Oil and Gas. , 2018, , .		94
23	Chiral Î±-Branched Benzylic Carbocations:Â Diastereoselective Intermolecular Reactions with Arene Nucleophiles and NMR Spectroscopic Studies. Journal of the American Chemical Society, 2006, 128, 9668-9675.	13.7	89
24	Hydrogen Generation from Formic Acid Decomposition by Ruthenium Carbonyl Complexes. Tetraruthenium Dodecacarbonyl Tetrahydride as an Active Intermediate. ChemSusChem, 2011, 4, 1241-1248.	6.8	83
25	Silica Nanoparticles as Supports for Regenerable CO₂ Sorbents. Energy & Fuels, 2012, 26, 3082-3090.	5.1	82
26	A Carbon-Neutral CO₂ Capture, Conversion, and Utilization Cycle with Low-Temperature Regeneration of Sodium Hydroxide. Journal of the American Chemical Society, 2018, 140, 16873-16876.	13.7	79
27	Iridium-Catalyzed Continuous Hydrogen Generation from Formic Acid and Its Subsequent Utilization in a Fuel Cell: Toward a Carbon Neutral Chemical Energy Storage. ACS Catalysis, 2016, 6, 7475-7484.	11.2	75
28	Remarkable effect of moisture on the CO 2 adsorption of nano-silica supported linear and branched polyethylenimine. Journal of CO2 Utilization, 2017, 19, 91-99.	6.8	73
29	Formic Acid As a Hydrogen Storage Medium: Ruthenium-Catalyzed Generation of Hydrogen from Formic Acid in Emulsions. ACS Catalysis, 2014, 4, 311-320.	11.2	72
30	Oxidationâ€Resistant, Costâ€Effective Epoxideâ€Modified Polyamine Adsorbents for CO₂ Capture from Various Sources Including Air. ChemSusChem, 2019, 12, 1712-1723.	6.8	67
31	Applicability of linear polyethylenimine supported on nano-silica for the adsorption of CO₂from various sources including dry air. RSC Advances, 2015, 5, 52550-52562.	3.6	64
32	CO₂ capture on easily regenerable hybrid adsorbents based on polyamines and mesocellular silica foam. Effect of pore volume of the support and polyamine molecular weight. RSC Advances, 2014, 4, 19403-19417.	3.6	62
33	Combined CO₂ Capture and Hydrogenation to Methanol: Amine Immobilization Enables Easy Recycling of Active Elements. ChemSusChem, 2019, 12, 3172-3177.	6.8	54
34	H/D Exchange and Isomerization of Small Alkanes over Unpromoted and Al2O3-Promoted SO2â˘'4/ZrO2 Catalysts. Journal of Catalysis, 2001, 197, 406-413.	6.2	48
35	Advances in Homogeneous Catalysis for Low Temperature Methanol Reforming in the Context of the Methanol Economy. Topics in Catalysis, 2018, 61, 542-559.	2.8	48
36	Self-Sufficient and Exclusive Oxygenation of Methane and Its Source Materials with Oxygen to Methanol via Metgas Using Oxidative Bi-reforming. Journal of the American Chemical Society, 2013, 135, 10030-10031.	13.7	43

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37	New Methods for Quantitative Determination of BrÃ¸nsted Acid Sites on Solid Acids: Applicability and Limits for Al2O3-Promoted SO42âˆ’/ZrO2 Catalysts. Journal of Catalysis, 2001, 197, 344-349.	6.2	41
38	Chiral Benzylic Carbocations: Low-Temperature NMR Studies and Theoretical Calculations. Journal of Organic Chemistry, 2009, 74, 312-318.	3.2	40
39	Structural parameters to consider in selecting silica supports for polyethylenimine based CO2 solid adsorbents. Importance of pore size. Journal of CO2 Utilization, 2018, 26, 246-253.	6.8	37
40	Catalytic Homogeneous Hydrogenation of CO to Methanol via Formamide. Journal of the American Chemical Society, 2019, 141, 12518-12521.	13.7	37
41	Organoamines-grafted on nano-sized silica for carbon dioxide capture. Journal of CO2 Utilization, 2013, 1, 1-7.	6.8	36
42	Beyond Oil and Gas: The Methanol Economy. ECS Transactions, 2011, 35, 31-40.	0.5	33
43	Solvated CH5+ in Liquid Superacid. Chemistry - A European Journal, 2001, 7, 1936-1943.	3.3	31
44	Regioselective deuteration of alcohols in D₂O catalysed by homogeneous manganese and iron pincer complexes. Green Chemistry, 2018, 20, 2706-2710.	9.0	30
45	Tertiary Amineâ€Ethylene Glycol Based Tandem CO₂ Capture and Hydrogenation to Methanol: Direct Utilization of Postâ€Combustion CO₂. ChemSusChem, 2020, 13, 6318-6322.	6.8	30
46	H/D Exchange Reaction between Isobutane and Acidic USY Zeolite: A Mechanistic Study by Mass Spectrometry and in Situ NMR. Journal of Catalysis, 2001, 204, 460-465.	6.2	28
47	Toward a Sustainable Carbon Cycle. , 2018, , 919-962.		27
48	Difference and Significance of Regenerative Versus Renewable Carbon Fuels and Products. Topics in Catalysis, 2018, 61, 522-529.	2.8	26
49	Renewable Methanol Synthesis through Single Step Bi-reforming of Biogas. Industrial & Engineering Chemistry Research, 2020, 59, 10542-10551.	3.7	21
50	Protonation of Small Alkanes in Liquid Superacids:Â Absence of Intramolecular13C and2H Scrambling in Propane and Isobutane. Journal of the American Chemical Society, 1999, 121, 10628-10629.	13.7	20
51	Methane activation in the presence of Al2O3-promoted sulfated zirconia. Applied Catalysis A: General, 2001, 219, 201-207.	4.3	19
52	Activation, isomerization and H/D exchange of small alkanes in triflic acid. Catalysis Letters, 1998, 56, 43-48.	2.6	18
53	Glycol assisted efficient conversion of CO2 captured from air to methanol with a heterogeneous Cu/ZnO/Al2O3 catalyst. Journal of CO2 Utilization, 2021, 54, 101762.	6.8	15
54	H/D exchange, protolysis and oxidation of C3â€“C5alkanes in HFâ€“SbF5. Ïƒ-Basicity vs. reactivity of Câ€“H bonds. New Journal of Chemistry, 2002, 26, 1335-1339.	2.8	14

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55	Carbocationic rearrangement of pivaloyl cation and protonated pivalaldehyde in superacid medium: A novel solution equivalent of the McLafferty rearrangement. Journal of the American Society for Mass Spectrometry, 2004, 15, 959-965.	2.8	14
56	Methane Activation and Oxidation in Sulfuric Acid. Chemistry - A European Journal, 2002, 8, 3277.	3.3	12
57	H/D isotope exchange between methane and magic acid (HSO3Fâ€“SbF5): an in situ NMR study. New Journal of Chemistry, 2004, 28, 266-269.	2.8	10
58	Integrated carbon capture and utilization to methanol with epoxide-functionalized polyamines under homogeneous catalytic conditions. Journal of Organometallic Chemistry, 2022, 965-966, 122331.	1.8	10
59	Reactivity of isobutane in fluorosulfonic based superacids. Journal of Physical Organic Chemistry, 2002, 15, 869-873.	1.9	5
60	Orthoamide und Iminiumsalze, LXXXIV [1]. Die Synthese von starken Formylierungsmitteln im prÃparativen GroÃŸmaÃŸstab: Tris(dichlormethyl)amin / Orthoamides and Iminiumsalts LXXXIV [1]. The Synthesis of Strong Formylating Reagents on a Large Preparative Scale: Tris(chloromethyl)amine. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2014, 69, 525-532.	0.7	0