

Alain Goeppert

List of Publications by Year in descending order

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60
papers

9,795
citations

108046

37
h-index

150775

59
g-index

67
all docs

67
docs citations

67
times ranked

11430
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. <i>Journal of Organic Chemistry</i> , 2009, 74, 487-498.	1.7	1,320
2	Anthropogenic Chemical Carbon Cycle for a Sustainable Future. <i>Journal of the American Chemical Society</i> , 2011, 133, 12881-12898.	6.6	1,159
3	Recycling of carbon dioxide to methanol and derived products “closing the loop”. <i>Chemical Society Reviews</i> , 2014, 43, 7995-8048.	18.7	1,125
4	Air as the renewable carbon source of the future: an overview of CO ₂ capture from the atmosphere. <i>Energy and Environmental Science</i> , 2012, 5, 7833.	15.6	549
5	Photocatalytic Conversion of CO ₂ to Hydrocarbon Fuels via Plasmon-Enhanced Absorption and Metallic Interband Transitions. <i>ACS Catalysis</i> , 2011, 1, 929-936.	5.5	498
6	Conversion of CO ₂ from Air into Methanol Using a Polyamine and a Homogeneous Ruthenium Catalyst. <i>Journal of the American Chemical Society</i> , 2016, 138, 778-781.	6.6	458
7	Carbon Dioxide Capture from the Air Using a Polyamine Based Regenerable Solid Adsorbent. <i>Journal of the American Chemical Society</i> , 2011, 133, 20164-20167.	6.6	428
8	Bi-reforming of Methane from Any Source with Steam and Carbon Dioxide Exclusively to Metgas (CO+2H ₂) for Methanol and Hydrocarbon Synthesis. <i>Journal of the American Chemical Society</i> , 2013, 135, 648-650.	6.6	237
9	Nanostructured silica as a support for regenerable high-capacity organoamine-based CO ₂ sorbents. <i>Energy and Environmental Science</i> , 2010, 3, 1949.	15.6	217
10	Integrated CO ₂ Capture and Conversion to Formate and Methanol: Connecting Two Threads. <i>Accounts of Chemical Research</i> , 2019, 52, 2892-2903.	7.6	210
11	Manganese-Catalyzed Sequential Hydrogenation of CO ₂ to Methanol via Formamide. <i>ACS Catalysis</i> , 2017, 7, 6347-6351.	5.5	203
12	Integrative CO ₂ Capture and Hydrogenation to Methanol with Reusable Catalyst and Amine: Toward a Carbon Neutral Methanol Economy. <i>Journal of the American Chemical Society</i> , 2018, 140, 1580-1583.	6.6	203
13	Advances in catalytic homogeneous hydrogenation of carbon dioxide to methanol. <i>Journal of CO₂ Utilization</i> , 2018, 23, 212-218.	3.3	154
14	Hydroxide Based Integrated CO ₂ Capture from Air and Conversion to Methanol. <i>Journal of the American Chemical Society</i> , 2020, 142, 4544-4549.	6.6	146
15	Easily Regenerable Solid Adsorbents Based on Polyamines for Carbon Dioxide Capture from the Air. <i>ChemSusChem</i> , 2014, 7, 1386-1397.	3.6	133
16	CO ₂ capture by amines in aqueous media and its subsequent conversion to formate with reusable ruthenium and iron catalysts. <i>Green Chemistry</i> , 2016, 18, 5831-5838.	4.6	132
17	Single Step Bi-reforming and Oxidative Bi-reforming of Methane (Natural Gas) with Steam and Carbon Dioxide to Metgas (CO+2H ₂) for Methanol Synthesis: Self-Sufficient Effective and Exclusive Oxygenation of Methane to Methanol with Oxygen. <i>Journal of the American Chemical Society</i> , 2015, 137, 8720-8729.	6.6	128
18	Mechanistic Insights into Ruthenium-Pincer-Catalyzed Amine-Assisted Homogeneous Hydrogenation of CO ₂ to Methanol. <i>Journal of the American Chemical Society</i> , 2019, 141, 3160-3170.	6.6	123

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19	Amine-Free Reversible Hydrogen Storage in Formate Salts Catalyzed by Ruthenium Pincer Complex without pH Control or Solvent Change. <i>ChemSusChem</i> , 2015, 8, 1442-1451.	3.6	107
20	Ionic Liquid and Solid HF Equivalent Amine-Poly(Hydrogen Fluoride) Complexes Effecting Efficient Environmentally Friendly Isobutane-Isobutylene Alkylation. <i>Journal of the American Chemical Society</i> , 2005, 127, 5964-5969.	6.6	106
21	Efficient Reversible Hydrogen Carrier System Based on Amine Reforming of Methanol. <i>Journal of the American Chemical Society</i> , 2017, 139, 2549-2552.	6.6	102
22	Beyond Oil and Gas. , 2018, , .		94
23	Chiral \pm -Branched Benzylic Carbocations: Diastereoselective Intermolecular Reactions with Arene Nucleophiles and NMR Spectroscopic Studies. <i>Journal of the American Chemical Society</i> , 2006, 128, 9668-9675.	6.6	89
24	Hydrogen Generation from Formic Acid Decomposition by Ruthenium Carbonyl Complexes. Tetra-ruthenium Dodecacarbonyl Tetrahydride as an Active Intermediate. <i>ChemSusChem</i> , 2011, 4, 1241-1248.	3.6	83
25	Silica Nanoparticles as Supports for Regenerable CO ₂ Sorbents. <i>Energy & Fuels</i> , 2012, 26, 3082-3090.	2.5	82
26	A Carbon-Neutral CO ₂ Capture, Conversion, and Utilization Cycle with Low-Temperature Regeneration of Sodium Hydroxide. <i>Journal of the American Chemical Society</i> , 2018, 140, 16873-16876.	6.6	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. <i>ACS Catalysis</i> , 2016, 6, 7475-7484.	5.5	75
28	Remarkable effect of moisture on the CO ₂ adsorption of nano-silica supported linear and branched polyethylenimine. <i>Journal of CO₂ Utilization</i> , 2017, 19, 91-99.	3.3	73
29	Formic Acid As a Hydrogen Storage Medium: Ruthenium-Catalyzed Generation of Hydrogen from Formic Acid in Emulsions. <i>ACS Catalysis</i> , 2014, 4, 311-320.	5.5	72
30	Oxidation-Resistant, Cost-Effective Epoxide-Modified Polyamine Adsorbents for CO ₂ Capture from Various Sources Including Air. <i>ChemSusChem</i> , 2019, 12, 1712-1723.	3.6	67
31	Applicability of linear polyethylenimine supported on nano-silica for the adsorption of CO ₂ from various sources including dry air. <i>RSC Advances</i> , 2015, 5, 52550-52562.	1.7	64
32	CO ₂ capture on easily regenerable hybrid adsorbents based on polyamines and mesocellular silica foam. Effect of pore volume of the support and polyamine molecular weight. <i>RSC Advances</i> , 2014, 4, 19403-19417.	1.7	62
33	Combined CO ₂ Capture and Hydrogenation to Methanol: Amine Immobilization Enables Easy Recycling of Active Elements. <i>ChemSusChem</i> , 2019, 12, 3172-3177.	3.6	54
34	H/D Exchange and Isomerization of Small Alkanes over Unpromoted and Al ₂ O ₃ -Promoted SO ₂ /ZrO ₂ Catalysts. <i>Journal of Catalysis</i> , 2001, 197, 406-413.	3.1	48
35	Advances in Homogeneous Catalysis for Low Temperature Methanol Reforming in the Context of the Methanol Economy. <i>Topics in Catalysis</i> , 2018, 61, 542-559.	1.3	48
36	Self-Sufficient and Exclusive Oxygenation of Methane and Its Source Materials with Oxygen to Methanol via Metgas Using Oxidative Bi-reforming. <i>Journal of the American Chemical Society</i> , 2013, 135, 10030-10031.	6.6	43

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37	New Methods for Quantitative Determination of Brønsted Acid Sites on Solid Acids: Applicability and Limits for Al ₂ O ₃ -Promoted SO ₄ ²⁻ /ZrO ₂ Catalysts. <i>Journal of Catalysis</i> , 2001, 197, 344-349.	3.1	41
38	Chiral Benzylic Carbocations: Low-Temperature NMR Studies and Theoretical Calculations. <i>Journal of Organic Chemistry</i> , 2009, 74, 312-318.	1.7	40
39	Structural parameters to consider in selecting silica supports for polyethylenimine based CO ₂ solid adsorbents. Importance of pore size. <i>Journal of CO₂ Utilization</i> , 2018, 26, 246-253.	3.3	37
40	Catalytic Homogeneous Hydrogenation of CO to Methanol via Formamide. <i>Journal of the American Chemical Society</i> , 2019, 141, 12518-12521.	6.6	37
41	Organoamines-grafted on nano-sized silica for carbon dioxide capture. <i>Journal of CO₂ Utilization</i> , 2013, 1, 1-7.	3.3	36
42	Beyond Oil and Gas: The Methanol Economy. <i>ECS Transactions</i> , 2011, 35, 31-40.	0.3	33
43	Solvated CH ₅ ⁺ in Liquid Superacid. <i>Chemistry - A European Journal</i> , 2001, 7, 1936-1943.	1.7	31
44	Regioselective deuteration of alcohols in D ₂ O catalysed by homogeneous manganese and iron pincer complexes. <i>Green Chemistry</i> , 2018, 20, 2706-2710.	4.6	30
45	Tertiary Amine-Ethylene Glycol Based Tandem CO ₂ Capture and Hydrogenation to Methanol: Direct Utilization of Post-Combustion CO ₂ . <i>ChemSusChem</i> , 2020, 13, 6318-6322.	3.6	30
46	H/D Exchange Reaction between Isobutane and Acidic USY Zeolite: A Mechanistic Study by Mass Spectrometry and in Situ NMR. <i>Journal of Catalysis</i> , 2001, 204, 460-465.	3.1	28
47	Toward a Sustainable Carbon Cycle. , 2018, , 919-962.		27
48	Difference and Significance of Regenerative Versus Renewable Carbon Fuels and Products. <i>Topics in Catalysis</i> , 2018, 61, 522-529.	1.3	26
49	Renewable Methanol Synthesis through Single Step Bi-reforming of Biogas. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 10542-10551.	1.8	21
50	Protonation of Small Alkanes in Liquid Superacids: Absence of Intramolecular ¹³ C and ² H Scrambling in Propane and Isobutane. <i>Journal of the American Chemical Society</i> , 1999, 121, 10628-10629.	6.6	20
51	Methane activation in the presence of Al ₂ O ₃ -promoted sulfated zirconia. <i>Applied Catalysis A: General</i> , 2001, 219, 201-207.	2.2	19
52	Activation, isomerization and H/D exchange of small alkanes in triflic acid. <i>Catalysis Letters</i> , 1998, 56, 43-48.	1.4	18
53	Glycol assisted efficient conversion of CO ₂ captured from air to methanol with a heterogeneous Cu/ZnO/Al ₂ O ₃ catalyst. <i>Journal of CO₂ Utilization</i> , 2021, 54, 101762.	3.3	15
54	H/D exchange, protolysis and oxidation of C ₃ -C ₅ alkanes in HF-SbF ₅ . <i>Basicity vs. reactivity of C-H bonds</i> . <i>New Journal of Chemistry</i> , 2002, 26, 1335-1339.	1.4	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. <i>Journal of the American Society for Mass Spectrometry</i> , 2004, 15, 959-965.	1.2	14
56	Methane Activation and Oxidation in Sulfuric Acid. <i>Chemistry - A European Journal</i> , 2002, 8, 3277.	1.7	12
57	H/D isotope exchange between methane and magic acid (HSO ₃ F/SbF ₅): an in situ NMR study. <i>New Journal of Chemistry</i> , 2004, 28, 266-269.	1.4	10
58	Integrated carbon capture and utilization to methanol with epoxide-functionalized polyamines under homogeneous catalytic conditions. <i>Journal of Organometallic Chemistry</i> , 2022, 965-966, 122331.	0.8	10
59	Reactivity of isobutane in fluorosulfonic based superacids. <i>Journal of Physical Organic Chemistry</i> , 2002, 15, 869-873.	0.9	5
60	Orthoamide und Iminiumsalze, LXXXIV [1]. Die Synthese von starken Formylierungsmitteln im präparativen Großmaßstab: Tris(dichlormethyl)amin / Orthoamides and Iminiumsalts LXXXIV [1]. The Synthesis of Strong Formylating Reagents on a Large Preparative Scale: Tris(chloromethyl)amine. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2014, 69, 525-532.	0.3	0