

# 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	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
2	Glycol assisted efficient conversion of CO <sub>2</sub> captured from air to methanol with a heterogeneous Cu/ZnO/Al <sub>2</sub> O <sub>3</sub> catalyst. <i>Journal of CO<sub>2</sub> Utilization</i> , 2021, 54, 101762.	3.3	15
3	Tertiary Amine-Ethylene Glycol Based Tandem CO <sub>2</sub> Capture and Hydrogenation to Methanol: Direct Utilization of Post-Combustion CO <sub>2</sub> . <i>ChemSusChem</i> , 2020, 13, 6318-6322.	3.6	30
4	Renewable Methanol Synthesis through Single Step Bi-reforming of Biogas. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 10542-10551.	1.8	21
5	Hydroxide Based Integrated CO <sub>2</sub> Capture from Air and Conversion to Methanol. <i>Journal of the American Chemical Society</i> , 2020, 142, 4544-4549.	6.6	146
6	Catalytic Homogeneous Hydrogenation of CO to Methanol via Formamide. <i>Journal of the American Chemical Society</i> , 2019, 141, 12518-12521.	6.6	37
7	Integrated CO <sub>2</sub> Capture and Conversion to Formate and Methanol: Connecting Two Threads. <i>Accounts of Chemical Research</i> , 2019, 52, 2892-2903.	7.6	210
8	Combined CO <sub>2</sub> Capture and Hydrogenation to Methanol: Amine Immobilization Enables Easy Recycling of Active Elements. <i>ChemSusChem</i> , 2019, 12, 3172-3177.	3.6	54
9	Oxidation-Resistant, Cost-Effective Epoxide-Modified Polyamine Adsorbents for CO <sub>2</sub> Capture from Various Sources Including Air. <i>ChemSusChem</i> , 2019, 12, 1712-1723.	3.6	67
10	Mechanistic Insights into Ruthenium-Pincer-Catalyzed Amine-Assisted Homogeneous Hydrogenation of CO <sub>2</sub> to Methanol. <i>Journal of the American Chemical Society</i> , 2019, 141, 3160-3170.	6.6	123
11	Integrative CO <sub>2</sub> 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
12	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
13	Difference and Significance of Regenerative Versus Renewable Carbon Fuels and Products. <i>Topics in Catalysis</i> , 2018, 61, 522-529.	1.3	26
14	Advances in catalytic homogeneous hydrogenation of carbon dioxide to methanol. <i>Journal of CO<sub>2</sub> Utilization</i> , 2018, 23, 212-218.	3.3	154
15	A Carbon-Neutral CO <sub>2</sub> 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
16	Structural parameters to consider in selecting silica supports for polyethylenimine based CO <sub>2</sub> solid adsorbents. Importance of pore size. <i>Journal of CO<sub>2</sub> Utilization</i> , 2018, 26, 246-253.	3.3	37
17	Toward a Sustainable Carbon Cycle. , 2018, , 919-962.		27
18	Regioselective deuteration of alcohols in D <sub>2</sub> O catalysed by homogeneous manganese and iron pincer complexes. <i>Green Chemistry</i> , 2018, 20, 2706-2710.	4.6	30

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19	Beyond Oil and Gas. , 2018, , .		94
20	Efficient Reversible Hydrogen Carrier System Based on Amine Reforming of Methanol. Journal of the American Chemical Society, 2017, 139, 2549-2552.	6.6	102
21	Remarkable effect of moisture on the CO <sub>2</sub> adsorption of nano-silica supported linear and branched polyethylenimine. Journal of CO <sub>2</sub> Utilization, 2017, 19, 91-99.	3.3	73
22	Manganese-Catalyzed Sequential Hydrogenation of CO <sub>2</sub> to Methanol via Formamide. ACS Catalysis, 2017, 7, 6347-6351.	5.5	203
23	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.	5.5	75
24	CO <sub>2</sub> capture by amines in aqueous media and its subsequent conversion to formate with reusable ruthenium and iron catalysts. Green Chemistry, 2016, 18, 5831-5838.	4.6	132
25	Conversion of CO <sub>2</sub> from Air into Methanol Using a Polyamine and a Homogeneous Ruthenium Catalyst. Journal of the American Chemical Society, 2016, 138, 778-781.	6.6	458
26	Amine-Free Reversible Hydrogen Storage in Formate Salts Catalyzed by Ruthenium Pincer Complex without pH Control or Solvent Change. ChemSusChem, 2015, 8, 1442-1451.	3.6	107
27	Applicability of linear polyethylenimine supported on nano-silica for the adsorption of CO <sub>2</sub> from various sources including dry air. RSC Advances, 2015, 5, 52550-52562.	1.7	64
28	Single Step Bi-reforming and Oxidative Bi-reforming of Methane (Natural Gas) with Steam and Carbon Dioxide to Metgas (CO+2H <sub>2</sub> ) 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.	6.6	128
29	Easily Regenerable Solid Adsorbents Based on Polyamines for Carbon Dioxide Capture from the Air. ChemSusChem, 2014, 7, 1386-1397.	3.6	133
30	CO <sub>2</sub> 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.	1.7	62
31	Recycling of carbon dioxide to methanol and derived products "closing the loop. Chemical Society Reviews, 2014, 43, 7995-8048.	18.7	1,125
32	Formic Acid As a Hydrogen Storage Medium: Ruthenium-Catalyzed Generation of Hydrogen from Formic Acid in Emulsions. ACS Catalysis, 2014, 4, 311-320.	5.5	72
33	Orthoamide und Iminiumsalze, LXXXIV [1]. Die Synthese von starken Formylierungsmitteln im präparativen Maßstab: 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.	0.3	0
34	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.	6.6	43
35	Bi-reforming of Methane from Any Source with Steam and Carbon Dioxide Exclusively to Metgas (CO+2H <sub>2</sub> ) for Methanol and Hydrocarbon Synthesis. Journal of the American Chemical Society, 2013, 135, 648-650.	6.6	237
36	Organoamines-grafted on nano-sized silica for carbon dioxide capture. Journal of CO <sub>2</sub> Utilization, 2013, 1, 1-7.	3.3	36

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37	Air as the renewable carbon source of the future: an overview of CO <sub>2</sub> capture from the atmosphere. <i>Energy and Environmental Science</i> , 2012, 5, 7833.	15.6	549
38	Silica Nanoparticles as Supports for Regenerable CO <sub>2</sub> Sorbents. <i>Energy &amp; Fuels</i> , 2012, 26, 3082-3090.	2.5	82
39	Anthropogenic Chemical Carbon Cycle for a Sustainable Future. <i>Journal of the American Chemical Society</i> , 2011, 133, 12881-12898.	6.6	1,159
40	Photocatalytic Conversion of CO <sub>2</sub> to Hydrocarbon Fuels via Plasmon-Enhanced Absorption and Metallic Interband Transitions. <i>ACS Catalysis</i> , 2011, 1, 929-936.	5.5	498
41	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
42	Hydrogen Generation from Formic Acid Decomposition by Ruthenium Carbonyl Complexes. Tetraruthenium Dodecacarbonyl Tetrahydride as an Active Intermediate. <i>ChemSusChem</i> , 2011, 4, 1241-1248.	3.6	83
43	Beyond Oil and Gas: The Methanol Economy. <i>ECS Transactions</i> , 2011, 35, 31-40.	0.3	33
44	Nanostructured silica as a support for regenerable high-capacity organoamine-based CO <sub>2</sub> sorbents. <i>Energy and Environmental Science</i> , 2010, 3, 1949.	15.6	217
45	Chiral Benzylic Carbocations: Low-Temperature NMR Studies and Theoretical Calculations. <i>Journal of Organic Chemistry</i> , 2009, 74, 312-318.	1.7	40
46	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
47	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
48	Ionic Liquid and Solid HF Equivalent Amine-Poly(Hydrogen Fluoride) Complexes Effecting Efficient Environmentally Friendly Isobutane $\alpha$ -Isobutylene Alkylation. <i>Journal of the American Chemical Society</i> , 2005, 127, 5964-5969.	6.6	106
49	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
50	H/D isotope exchange between methane and magic acid (HSO <sub>3</sub> F $\cdot$ SbF <sub>5</sub> ): an in situ NMR study. <i>New Journal of Chemistry</i> , 2004, 28, 266-269.	1.4	10
51	H/D exchange, protolysis and oxidation of C <sub>3</sub> -C <sub>5</sub> alkanes in HF $\cdot$ SbF <sub>5</sub> . $\beta$ -Basicity vs. reactivity of C-H bonds. <i>New Journal of Chemistry</i> , 2002, 26, 1335-1339.	1.4	14
52	Methane Activation and Oxidation in Sulfuric Acid. <i>Chemistry - A European Journal</i> , 2002, 8, 3277.	1.7	12
53	Reactivity of isobutane in fluorosulfonic based superacids. <i>Journal of Physical Organic Chemistry</i> , 2002, 15, 869-873.	0.9	5
54	Methane activation in the presence of Al <sub>2</sub> O <sub>3</sub> -promoted sulfated zirconia. <i>Applied Catalysis A: General</i> , 2001, 219, 201-207.	2.2	19

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55	Solvated CH <sub>5</sub> <sup>+</sup> in Liquid Superacid. Chemistry - A European Journal, 2001, 7, 1936-1943.	1.7	31
56	New Methods for Quantitative Determination of Brønsted Acid Sites on Solid Acids: Applicability and Limits for Al <sub>2</sub> O <sub>3</sub> -Promoted SO <sub>4</sub> <sup>2-</sup> /ZrO <sub>2</sub> Catalysts. Journal of Catalysis, 2001, 197, 344-349.	3.1	41
57	H/D Exchange and Isomerization of Small Alkanes over Unpromoted and Al <sub>2</sub> O <sub>3</sub> -Promoted SO <sub>4</sub> <sup>2-</sup> /ZrO <sub>2</sub> Catalysts. Journal of Catalysis, 2001, 197, 406-413.	3.1	48
58	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.	3.1	28
59	Protonation of Small Alkanes in Liquid Superacids: Absence of Intramolecular <sup>13</sup> C and <sup>2</sup> H Scrambling in Propane and Isobutane. Journal of the American Chemical Society, 1999, 121, 10628-10629.	6.6	20
60	Activation, isomerization and H/D exchange of small alkanes in triflic acid. Catalysis Letters, 1998, 56, 43-48.	1.4	18