Yige Gao

List of Publications by Year in descending order

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80	2,586	279798 23	197818 49
papers	citations	h-index	g-index

82	82	82	3511
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Microwave-initiated catalytic deconstruction of plastic waste into hydrogen and high-value carbons. Nature Catalysis, 2020, 3, 902-912.	34.4	287
2	Decarbonising energy: The developing international activity in hydrogen technologies and fuel cells. Journal of Energy Chemistry, 2020, 51, 405-415.	12.9	199
3	Gold in a Metallic Divided Stateâ€"From Faraday to Present-Day Nanoscience. Angewandte Chemie - International Edition, 2007, 46, 5480-5486.	13.8	161
4	Transforming carbon dioxide into jet fuel using an organic combustion-synthesized Fe-Mn-K catalyst. Nature Communications, 2020, 11, 6395.	12.8	161
5	A Molecular Perspective on Lithiumâ€"Ammonia Solutions. Angewandte Chemie - International Edition, 2009, 48, 8198-8232.	13.8	155
6	Life cycle energy and greenhouse gas analysis for algae-derived biodiesel. Energy and Environmental Science, 2011, 4, 3773.	30.8	141
7	Energy Storage via Carbon-Neutral Fuels Made From CO$_{2}$, Water, and Renewable Energy. Proceedings of the IEEE, 2012, 100, 440-460.	21.3	116
8	Electron Transfer and Electronic Conduction through an Intervening Medium. Angewandte Chemie - International Edition, 2008, 47, 6758-6765.	13.8	111
9	The Monoammoniate of Lithium Borohydride, Li(NH₃)BH₄: An Effective Ammonia Storage Compound. Chemistry - an Asian Journal, 2009, 4, 849-854.	3.3	99
10	The importance of inner cavity space within Ni@SiO2 nanocapsule catalysts for excellent coking resistance in the high-space-velocity dry reforming of methane. Applied Catalysis B: Environmental, 2019, 259, 118019.	20.2	80
11	The decarbonisation of petroleum and other fossil hydrocarbon fuels for the facile production and safe storage of hydrogen. Energy and Environmental Science, 2019, 12, 238-249.	30.8	75
12	Electromagnetic absorption in transparent conducting films. Journal of Applied Physics, 2004, 95, 4734-4737.	2.5	71
13	Visible-Light-Driven Photodegradation of Rhodamine B on Ag-Modified BiOBr. Catalysis Letters, 2012, 142, 771-778.	2.6	65
14	Facile in situ reductive synthesis of both nitrogen deficient and protonated g-C₃N₄ nanosheets for the synergistic enhancement of visible-light H₂ evolution. Chemical Science, 2020, 11, 2716-2728.	7.4	55
15	Dopant-induced bandgap shift in Al-doped ZnO thin films prepared by spray pyrolysis. Journal of Applied Physics, 2012, 112, .	2.5	54
16	Microwave absorption in powders of small conducting particles for heating applications. Physical Chemistry Chemical Physics, 2013, 15, 2757.	2.8	42
17	Rapid Production of Highâ€Purity Hydrogen Fuel through Microwaveâ€Promoted Deep Catalytic Dehydrogenation of Liquid Alkanes with Abundant Metals. Angewandte Chemie - International Edition, 2017, 56, 10170-10173.	13.8	42
18	Methanol-to-hydrocarbons conversion over MoO₃/H-ZSM-5 catalysts prepared via lower temperature calcination: a route to tailor the distribution and evolution of promoter Mo species, and their corresponding catalytic properties. Chemical Science, 2015, 6, 5152-5163.	7.4	41

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19	Highly conducting and optically transparent Si-doped ZnO thin films prepared by spray pyrolysis. Journal of Materials Chemistry C, 2013, 1, 6960.	5.5	39
20	Mesoscience: exploring the common principle at mesoscales. National Science Review, 2018, 5, 321-326.	9.5	31
21	Thermodynamic study of hydrocarbon synthesis from carbon dioxide and hydrogen. , 2017, 7, 942-957.		29
22	NMR spectrum of the potassium anion Kâ^'. Nature, 1985, 317, 242-244.	27.8	27
23	Nuclear shielding in the alkali metal anions. Journal of the American Chemical Society, 1986, 108, 78-81.	13.7	27
24	UV-induced improvement in ZnO thin film conductivity: a new in situ approach. Journal of Materials Chemistry C, 2014, 2, 9643-9652.	5.5	25
25	The Possibility of a Liquid Superconductor. ChemPhysChem, 2006, 7, 2015-2021.	2.1	22
26	Citric acid-assisted synthesis of Î³-alumina-supported high loading CoMo sulfide catalysts for the hydrodesulfurization (HDS) and hydrodenitrogenation (HDN) reactions. Applied Petrochemical Research, 2015, 5, 181-197.	1.3	21
27	High-pressure crystal structure prediction of calcium borohydride using density functional theory. Physical Review B, 2011, 83, .	3.2	20
28	The synthesis and structural investigation of mixed lithium/sodium amides. Journal of Materials Chemistry, 2008, 18, 2355.	6.7	18
29	The Mott transition and optimal performance of transparent conducting oxides in thin-film solar cells. Energy and Environmental Science, 2012, 5, 5387-5391.	30.8	18
30	The Catalyst Selectivity Index (CSI): A Framework and Metric to Assess the Impact of Catalyst Efficiency Enhancements upon Energy and CO2 Footprints. Topics in Catalysis, 2015, 58, 682-695.	2.8	18
31	Electronic conduction in amorphous and polycrystalline zinc-indium oxide films. Applied Physics Letters, 2010, 97, 262117.	3.3	17
32	Effect of Titania Addition on the Performance of CoMo/Al2O3 Sour Water Gas Shift Catalysts under Lean Steam to Gas Ratio Conditions. Industrial & Engineering Chemistry Research, 2012, 51, 11674-11680.	3.7	17
33	The Transition to the Metallic State in Polycrystalline nâ€type Doped ZnO Thin Films. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2014, 640, 1054-1062.	1.2	17
34	Electron Solvation and the Unique Liquid Structure of a Mixedâ€Amine Expanded Metal: The Saturated Liâ€“NH₃â€“MeNH₂ System. Angewandte Chemie - International Edition, 2017, 56, 1561-1565.	13.8	17
35	Superalkaliâ€“Alkalide Interactions and Ion Pairing in Low-Polarity Solvents. Journal of the American Chemical Society, 2021, 143, 3934-3943.	13.7	17
36	Selective zeolite catalyst for alkylation of benzene with ethylene to produce ethylbenzene. Applied Petrochemical Research, 2012, 2, 73-83.	1.3	16

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37	Superconductivity in transition metals. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140476.	3.4	16
38	Local probes show that framework modification in zeolites occurs on ammonium exchange without calcination. Journal of Materials Chemistry A, 2013, 1, 7415.	10.3	13
39	Glycerol hydrogenolysis over a Ptâ€“Ni bimetallic catalyst with hydrogen generated in situ. RSC Advances, 2017, 7, 38251-38256.	3.6	13
40	MnO_x-Promoted, Coking-Resistant Nickel-Based Catalysts for Microwave-Initiated CO₂ Utilization. Industrial & Engineering Chemistry Research, 2020, 59, 6914-6923.	3.7	13
41	Nuclear spinâ€lattice relaxation in the sodium anion, Naâ¯. Journal of Chemical Physics, 1986, 84, 1089-1098.	3.0	12
42	Intrinsic flexibility of porous materials; theory, modelling and the flexibility window of the EMT zeolite framework. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2015, 71, 641-647.	1.1	12
43	Order and disorder in lithium tetrahydroborate. Journal of Materials Science, 2011, 46, 566-569.	3.7	11
44	High alcohol synthesis (HAS) from syngas over supported molybdenum carbide catalysts. Applied Petrochemical Research, 2013, 3, 71-77.	1.3	11
45	Defining the flexibility window in ordered aluminosilicate zeolites. Royal Society Open Science, 2017, 4, 170757.	2.4	9
46	Gas-like nature of the sodium anion in solution. Nature, 1986, 321, 684-685.	27.8	8
47	Hydrogen bonds between methanol and the light liquid olefins 1-pentene and 1-hexene: from application to fundamental science. Chemical Communications, 2017, 53, 4026-4029.	4.1	8
48	Size-Dependent Microwave Heating and Catalytic Activity of Fine Iron Particles in the Deep Dehydrogenation of Hexadecane. Chemistry of Materials, 2022, 34, 4682-4693.	6.7	8
49	The effect of lanthanum addition on the catalytic activity of Î³-alumina supported bimetallic Coâ€“Mo carbides for dry methane reforming. Applied Petrochemical Research, 2014, 4, 145-156.	1.3	7
50	One-Pot Synthesis of Ca Oxide-Promoted Cr Catalysts for the Dehydrogenation of Propane Using CO₂. Industrial & Engineering Chemistry Research, 2020, 59, 12645-12656.	3.7	7
51	Catalytic Activity of Various Carbons during the Microwave-Initiated Deep Dehydrogenation of Hexadecane. Jacs Au, 2021, 1, 2021-2032.	7.9	7
52	Atomic Structure and Valence State of Cobalt Nanocrystals on Carbon under Syngas Versus Hydrogen Reduction. Journal of Physical Chemistry C, 2022, 126, 6325-6333.	3.1	7
53	On the occurrence of metallic character in the periodic table of the chemical elements. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140477.	3.4	6
54	Novel Cobalt Complex as an Efficient Catalyst for Converting CO2 into Cyclic Carbonates under Mild Conditions. Catalysts, 2019, 9, 951.	3.5	6

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55	Investigations of the optical and electronic effects of silicon and indium co-doping on ZnO thin films deposited by spray pyrolysis. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2020, 75, 23-32.	0.7	6
56	Thermodynamic analysis of synthesis of cyclopentanol from cyclopentene and comparison with experimental data. Applied Petrochemical Research, 2015, 5, 135-142.	1.3	5
57	Sustainable chemical processing of flowing wastewater through microwave energy. Chemosphere, 2022, 287, 132035.	8.2	5
58	Density of states in the gap of a disordered material using E.S.R./optical correlations. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1979, 39, 81-91.	0.6	4
59	Rapid, non-invasive characterization of the dispersity of emulsionsviamicrowaves. Chemical Science, 2018, 9, 6975-6980.	7.4	4
60	Metals and non-metals in the periodic table. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20200213.	3.4	4
61	TPO/TPD study on the activation of silica supported cobalt catalyst. Applied Petrochemical Research, 2013, 3, 25-34.	1.3	3
62	Rapid Production of Highâ€Purity Hydrogen Fuel through Microwaveâ€Promoted Deep Catalytic Dehydrogenation of Liquid Alkanes with Abundant Metals. Angewandte Chemie, 2017, 129, 10304-10307.	2.0	3
63	Electrical and optical properties of transparent conducting In4+xSn3â˜2xSbxO12 thin films. Journal of Applied Physics, 2011, 110, 033702.	2.5	2
64	Electron microscopic studies of growth of nanoscale catalysts and soot particles in a candle flame. Applied Petrochemical Research, 2012, 2, 15-21.	1.3	2
65	A research into the thermodynamics of methanol to hydrocarbon (MTH): conflictions between simulated product distribution and experimental results. Applied Petrochemical Research, 2017, 7, 55-66.	1.3	2
66	The periodic law of the chemical elements: â€˜ The new system of atomic weights which renders evident the analogies which exist between bodies ' []. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190537.	3.4	2
67	Crystal Chemistry of Hydrogen Storage Materials. Materials Research Society Symposia Proceedings, 2008, 1098, 1.	0.1	1
68	Highly Conductive In4Sn3O12 Films Prepared by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2008, 1102, 1.	0.1	1
69	Preface. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20130130.	3.4	1
70	Questioning Antiferromagnetic Ordering in the Expanded Metal, Li(NH₃)₄: A Lack of Evidence from Î¼SR. Journal of Physical Chemistry Letters, 2015, 6, 3966-3970.	4.6	1
71	Electron Solvation and the Unique Liquid Structure of a Mixedâ€Amine Expanded Metal: The Saturated Liâ€“NH₃â€“MeNH₂ System. Angewandte Chemie, 2017, 129, 1583-1587.	2.0	1
72	Solvation of Na^{â€“} in the Sodide Solution, LiNaÂ·10MeNH₂. Journal of Physical Chemistry B, 2019, 123, 5337-5342.	2.6	1

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73	High-capacity hydrogen storage in lithium and sodium amidoboranes. , 2010, , 276-279.		0
74	Preparation of mesoporous N-doped TiO<inf>2</inf> via solvent evaporation induced assembly. , 2010, , .		0
75	Nitrogen-doped TiO<inf>2</inf> nano-crystal colloid: A printable “Ink” for potential solar energy devices. , 2010, , .		0
76	The First KACST-Oxford Petrochemical Forum, 2011. Applied Petrochemical Research, 2012, 2, 1-2.	1.3	0
77	Preface for the special issue of the 3rd KACST-Oxford Petrochemical Forum. Applied Petrochemical Research, 2014, 4, 1-2.	1.3	0
78	The 4th KACST-Oxford Petrochemicals Forum. Applied Petrochemical Research, 2015, 5, 151-152.	1.3	0
79	Dedication to Lord Lewis: the new chemistry of the elements. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140475.	3.4	0
80	Activation of Co Fischer-Tropsch Catalyst: Exploring Co Valence State under Different Reduction Conditions Using STEM-EELS. Microscopy and Microanalysis, 2019, 25, 668-669.	0.4	0