

Yige Gao

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

2,586
citations

279798

23
h-index

197818

49
g-index

82
all docs

82
docs citations

82
times ranked

3511
citing authors

#	ARTICLE	IF	CITATIONS
1	Sustainable chemical processing of flowing wastewater through microwave energy. <i>Chemosphere</i> , 2022, 287, 132035.	8.2	5
2	Atomic Structure and Valence State of Cobalt Nanocrystals on Carbon under Syngas Versus Hydrogen Reduction. <i>Journal of Physical Chemistry C</i> , 2022, 126, 6325-6333.	3.1	7
3	Size-Dependent Microwave Heating and Catalytic Activity of Fine Iron Particles in the Deep Dehydrogenation of Hexadecane. <i>Chemistry of Materials</i> , 2022, 34, 4682-4693.	6.7	8
4	Superalkali-alkalide interactions and ion pairing in low-polarity solvents. <i>Journal of the American Chemical Society</i> , 2021, 143, 3934-3943.	13.7	17
5	Catalytic activity of various carbons during the microwave-initiated deep dehydrogenation of hexadecane. <i>JACS</i> , 2021, 143, 2021-2032.	7.9	7
6	Microwave-initiated catalytic deconstruction of plastic waste into hydrogen and high-value carbons. <i>Nature Catalysis</i> , 2020, 3, 902-912.	34.4	287
7	The periodic law of the chemical elements: The new system of atomic weights which renders evident the analogies which exist between bodies. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190537.	3.4	2
8	Metals and non-metals in the periodic table. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20200213.	3.4	4
9	Transforming carbon dioxide into jet fuel using an organic combustion-synthesized Fe-Mn-K catalyst. <i>Nature Communications</i> , 2020, 11, 6395.	12.8	161
10	One-Pot Synthesis of Ca Oxide-Promoted Cr Catalysts for the Dehydrogenation of Propane Using CO ₂ . <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 12645-12656.	3.7	7
11	Investigations of the optical and electronic effects of silicon and indium co-doping on ZnO thin films deposited by spray pyrolysis. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2020, 75, 23-32.	0.7	6
12	MnO ₂ -Promoted, Coking-Resistant Nickel-Based Catalysts for Microwave-Initiated CO ₂ Utilization. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 6914-6923.	3.7	13
13	Decarbonising energy: The developing international activity in hydrogen technologies and fuel cells. <i>Journal of Energy Chemistry</i> , 2020, 51, 405-415.	12.9	199
14	Facile in situ reductive synthesis of both nitrogen deficient and protonated g-C ₃ N ₄ nanosheets for the synergistic enhancement of visible-light H ₂ evolution. <i>Chemical Science</i> , 2020, 11, 2716-2728.	7.4	55
15	The importance of inner cavity space within Ni@SiO ₂ nanocapsule catalysts for excellent coking resistance in the high-space-velocity dry reforming of methane. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118019.	20.2	80
16	Activation of Co Fischer-Tropsch Catalyst: Exploring Co Valence State under Different Reduction Conditions Using STEM-EELS. <i>Microscopy and Microanalysis</i> , 2019, 25, 668-669.	0.4	0
17	Solvation of Na ⁺ in the Sodide Solution, LiNa ⁺ ·10MeNH ₂ . <i>Journal of Physical Chemistry B</i> , 2019, 123, 5337-5342.	2.6	1
18	Novel Cobalt Complex as an Efficient Catalyst for Converting CO ₂ into Cyclic Carbonates under Mild Conditions. <i>Catalysts</i> , 2019, 9, 951.	3.5	6

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19	The decarbonisation of petroleum and other fossil hydrocarbon fuels for the facile production and safe storage of hydrogen. <i>Energy and Environmental Science</i> , 2019, 12, 238-249.	30.8	75
20	Mesosience: exploring the common principle at mesoscales. <i>National Science Review</i> , 2018, 5, 321-326.	9.5	31
21	Rapid, non-invasive characterization of the dispersity of emulsions via microwaves. <i>Chemical Science</i> , 2018, 9, 6975-6980.	7.4	4
22	Electron Solvation and the Unique Liquid Structure of a Mixed Amine Expanded Metal: The Saturated $\text{Li}^+\text{NH}_3^-\text{MeNH}_2$ System. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1561-1565.	13.8	17
23	Hydrogen bonds between methanol and the light liquid olefins 1-pentene and 1-hexene: from application to fundamental science. <i>Chemical Communications</i> , 2017, 53, 4026-4029.	4.1	8
24	Thermodynamic study of hydrocarbon synthesis from carbon dioxide and hydrogen. , 2017, 7, 942-957.		29
25	Rapid Production of High Purity Hydrogen Fuel through Microwave Promoted Deep Catalytic Dehydrogenation of Liquid Alkanes with Abundant Metals. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 10170-10173.	13.8	42
26	Rapid Production of High Purity Hydrogen Fuel through Microwave Promoted Deep Catalytic Dehydrogenation of Liquid Alkanes with Abundant Metals. <i>Angewandte Chemie</i> , 2017, 129, 10304-10307.	2.0	3
27	Electron Solvation and the Unique Liquid Structure of a Mixed Amine Expanded Metal: The Saturated $\text{Li}^+\text{NH}_3^-\text{MeNH}_2$ System. <i>Angewandte Chemie</i> , 2017, 129, 1583-1587.	2.0	1
28	Defining the flexibility window in ordered aluminosilicate zeolites. <i>Royal Society Open Science</i> , 2017, 4, 170757.	2.4	9
29	Glycerol hydrogenolysis over a Pt-Ni bimetallic catalyst with hydrogen generated in situ. <i>RSC Advances</i> , 2017, 7, 38251-38256.	3.6	13
30	A research into the thermodynamics of methanol to hydrocarbon (MTH): conflictions between simulated product distribution and experimental results. <i>Applied Petrochemical Research</i> , 2017, 7, 55-66.	1.3	2
31	Intrinsic flexibility of porous materials; theory, modelling and the flexibility window of the EMT zeolite framework. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2015, 71, 641-647.	1.1	12
32	The 4th KACST-Oxford Petrochemicals Forum. <i>Applied Petrochemical Research</i> , 2015, 5, 151-152.	1.3	0
33	Thermodynamic analysis of synthesis of cyclopentanol from cyclopentene and comparison with experimental data. <i>Applied Petrochemical Research</i> , 2015, 5, 135-142.	1.3	5
34	Superconductivity in transition metals. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140476.	3.4	16
35	Dedication to Lord Lewis: the new chemistry of the elements. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140475.	3.4	0
36	On the occurrence of metallic character in the periodic table of the chemical elements. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140477.	3.4	6

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37	The Catalyst Selectivity Index (CSI): A Framework and Metric to Assess the Impact of Catalyst Efficiency Enhancements upon Energy and CO ₂ Footprints. Topics in Catalysis, 2015, 58, 682-695.	2.8	18
38	Methanol-to-hydrocarbons conversion over MoO ₃ /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
39	Citric acid-assisted synthesis of γ -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
40	Questioning Antiferromagnetic Ordering in the Expanded Metal, Li(NH ₃) ₄ : A Lack of Evidence from $^{1/4}$ SR. Journal of Physical Chemistry Letters, 2015, 6, 3966-3970.	4.6	1
41	The Transition to the Metallic State in Polycrystalline <i>n</i> -type Doped ZnO Thin Films. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2014, 640, 1054-1062.	1.2	17
42	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
43	The effect of lanthanum addition on the catalytic activity of γ -alumina supported bimetallic Co-Mo carbides for dry methane reforming. Applied Petrochemical Research, 2014, 4, 145-156.	1.3	7
44	Preface for the special issue of the 3rd KACST-Oxford Petrochemical Forum. Applied Petrochemical Research, 2014, 4, 1-2.	1.3	0
45	High alcohol synthesis (HAS) from syngas over supported molybdenum carbide catalysts. Applied Petrochemical Research, 2013, 3, 71-77.	1.3	11
46	TPO/TPD study on the activation of silica supported cobalt catalyst. Applied Petrochemical Research, 2013, 3, 25-34.	1.3	3
47	Microwave absorption in powders of small conducting particles for heating applications. Physical Chemistry Chemical Physics, 2013, 15, 2757.	2.8	42
48	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
49	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
50	Preface. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20130130.	3.4	1
51	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
52	The First KACST-Oxford Petrochemical Forum, 2011. Applied Petrochemical Research, 2012, 2, 1-2.	1.3	0
53	Selective zeolite catalyst for alkylation of benzene with ethylene to produce ethylbenzene. Applied Petrochemical Research, 2012, 2, 73-83.	1.3	16
54	Effect of Titania Addition on the Performance of CoMo/Al ₂ O ₃ Sour Water Gas Shift Catalysts under Lean Steam to Gas Ratio Conditions. Industrial & Engineering Chemistry Research, 2012, 51, 11674-11680.	3.7	17

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55	Dopant-induced bandgap shift in Al-doped ZnO thin films prepared by spray pyrolysis. Journal of Applied Physics, 2012, 112, .	2.5	54
56	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
57	Visible-Light-Driven Photodegradation of Rhodamine B on Ag-Modified BiOBr. Catalysis Letters, 2012, 142, 771-778.	2.6	65
58	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
59	Life cycle energy and greenhouse gas analysis for algae-derived biodiesel. Energy and Environmental Science, 2011, 4, 3773.	30.8	141
60	High-pressure crystal structure prediction of calcium borohydride using density functional theory. Physical Review B, 2011, 83, .	3.2	20
61	Order and disorder in lithium tetrahydroborate. Journal of Materials Science, 2011, 46, 566-569.	3.7	11
62	Electrical and optical properties of transparent conducting In _{4+x} Sn ₃ ~2xSb _x O ₁₂ thin films. Journal of Applied Physics, 2011, 110, 033702.	2.5	2
63	High-capacity hydrogen storage in lithium and sodium amidoboranes. , 2010, , 276-279.		0
64	Preparation of mesoporous N-doped TiO ₂ via solvent evaporation induced assembly. , 2010, , .		0
65	Electronic conduction in amorphous and polycrystalline zinc-indium oxide films. Applied Physics Letters, 2010, 97, 262117.	3.3	17
66	Nitrogen-doped TiO ₂ nano-crystal colloid: A printable ink for potential solar energy devices. , 2010, , .		0
67	A Molecular Perspective on Lithium-Ammonia Solutions. Angewandte Chemie - International Edition, 2009, 48, 8198-8232.	13.8	155
68	The Monoammoniate of Lithium Borohydride, Li(NH ₃)BH ₄ : An Effective Ammonia Storage Compound. Chemistry - an Asian Journal, 2009, 4, 849-854.	3.3	99
69	Electron Transfer and Electronic Conduction through an Intervening Medium. Angewandte Chemie - International Edition, 2008, 47, 6758-6765.	13.8	111
70	Crystal Chemistry of Hydrogen Storage Materials. Materials Research Society Symposia Proceedings, 2008, 1098, 1.	0.1	1
71	The synthesis and structural investigation of mixed lithium/sodium amides. Journal of Materials Chemistry, 2008, 18, 2355.	6.7	18
72	Highly Conductive In ₄ Sn ₃ O ₁₂ Films Prepared by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2008, 1102, 1.	0.1	1

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73	Gold in a Metallic Divided State—From Faraday to Present-Day Nanoscience. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 5480-5486.	13.8	161
74	The Possibility of a Liquid Superconductor. <i>ChemPhysChem</i> , 2006, 7, 2015-2021.	2.1	22
75	Electromagnetic absorption in transparent conducting films. <i>Journal of Applied Physics</i> , 2004, 95, 4734-4737.	2.5	71
76	Nuclear shielding in the alkali metal anions. <i>Journal of the American Chemical Society</i> , 1986, 108, 78-81.	13.7	27
77	Gas-like nature of the sodium anion in solution. <i>Nature</i> , 1986, 321, 684-685.	27.8	8
78	Nuclear spin-lattice relaxation in the sodium anion, Na^- . <i>Journal of Chemical Physics</i> , 1986, 84, 1089-1098.	3.0	12
79	NMR spectrum of the potassium anion K^- . <i>Nature</i> , 1985, 317, 242-244.	27.8	27
80	Density of states in the gap of a disordered material using E.S.R./optical correlations. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1979, 39, 81-91.	0.6	4