Asif Hasan Rony

List of Publications by Year
in descending order

171	10,622	36203	35952
papers	citations	51 h-index	97 g-index

171	171	171	12270
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Recent developments in heterogeneous photocatalytic water treatment using visible light-responsive photocatalysts: a review. RSC Advances, 2015, 5, 14610-14630.	1.7	796
2	Amine-Based CO₂ Capture Technology Development from the Beginning of 2013â€"A Review. ACS Applied Materials & Interfaces, 2015, 7, 2137-2148.	4.0	686
3	Review of recent advances in carbon dioxide separation and capture. RSC Advances, 2013, 3, 22739.	1.7	632
4	CO2 hydrogenation to high-value products via heterogeneous catalysis. Nature Communications, 2019, 10, 5698.	5.8	571
5	Sulfate Radical and Its Application in Decontamination Technologies. Critical Reviews in Environmental Science and Technology, 2015, 45, 1756-1800.	6.6	392
6	Enhanced CO₂ Capture Capacity of Nitrogen-Doped Biomass-Derived Porous Carbons. ACS Sustainable Chemistry and Engineering, 2016, 4, 1439-1445.	3.2	313
7	High-performance of nanostructured Ni/CeO2 catalyst on CO2 methanation. Applied Catalysis B: Environmental, 2020, 268, 118474.	10.8	226
8	Mesoporous amine-modified SiO2 aerogel: a potential CO2 sorbent. Energy and Environmental Science, 2011, 4, 2070.	15.6	214
9	The Current State of Water Quality and Technology Development for Water Pollution Control in China. Critical Reviews in Environmental Science and Technology, 2010, 40, 519-560.	6.6	207
10	Enhanced photodegradation activity of methyl orange over Z-scheme type MoO₃â€"g-C₃N₄ composite under visible light irradiation. RSC Advances, 2014, 4, 13610-13619.	1.7	205
11	Review of the progress in preparing nano TiO2: An important environmental engineering material. Journal of Environmental Sciences, 2014, 26, 2139-2177.	3.2	202
12	Electrochemical nitrate reduction by using a novel Co 3 O 4 /Ti cathode. Water Research, 2017, 120, 1-11.	5.3	202
13	Double-shelled ZnSnO3 hollow cubes for efficient photocatalytic degradation of antibiotic wastewater. Chemical Engineering Journal, 2020, 384, 123279.	6.6	179
14	Highly Cost-Effective Nitrogen-Doped Porous Coconut Shell-Based CO₂ Sorbent Synthesized by Combining Ammoxidation with KOH Activation. Environmental Science & Technology, 2015, 49, 7063-7070.	4.6	173
15	Comparing Two New Composite Photocatalysts, t-LaVO₄/g-C₃N₄ and m-LaVO₄/g-C₃N₄, for Their Structures and Performances. Industrial & Engineering Chemistry Research, 2014, 53, 5905-5915.	1.8	137
16	Separation and structural characterization of the value-added chemicals from mild degradation of lignites: A review. Applied Energy, 2016, 170, 415-436.	5.1	129
17	Recovery of rare earth elements with ionic liquids. Green Chemistry, 2017, 19, 4469-4493.	4.6	126
18	Enhanced stability of Ni/SiO2 catalyst for CO2 methanation: Derived from nickel phyllosilicate with strong metal-support interactions. Energy, 2019, 188, 116059.	4.5	123

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19	Catalyst-TiO(OH)2 could drastically reduce the energy consumption of CO2 capture. Nature Communications, 2018, 9, 2672.	5.8	122
20	A novel and high-performance double Z-scheme photocatalyst ZnO-SnO2-Zn2SnO4 for effective removal of the biological toxicity of antibiotics. Journal of Hazardous Materials, 2020, 399, 123017.	6.5	115
21	A novel Bi₂S₃/KTa_{0.75}Nb_{0.25}O₃nanocomposite with high efficiency for photocatalytic and piezocatalytic N₂fixation. Journal of Materials Chemistry A, 2021, 9, 13344-13354.	5.2	109
22	Low-Pressure Hydrogenation of CO₂ to CH₃OH Using Ni-In-Al/SiO₂ Catalyst Synthesized via a Phyllosilicate Precursor. ACS Catalysis, 2017, 7, 5679-5692.	5.5	103
23	A DFT study on lignin dissolution in imidazolium-based ionic liquids. RSC Advances, 2017, 7, 12670-12681.	1.7	100
24	Efficient Ionicâ€Liquidâ€Promoted Chemical Fixation of CO₂ into Î±â€Alkylidene Cyclic Carbonates. ChemSusChem, 2017, 10, 1120-1127.	3.6	99
25	Progress in Nonoxidative Dehydroaromatization of Methane in the Last 6 Years. Industrial & Engineering Chemistry Research, 2018, 57, 1768-1789.	1.8	97
26	Recent progress in theoretical and computational studies on the utilization of lignocellulosic materials. Green Chemistry, 2019, 21, 9-35.	4.6	96
27	Amine-modified ordered mesoporous silica: The effect of pore size on CO2 capture performance. Applied Surface Science, 2015, 324, 286-292.	3.1	92
28	Role of Hydrogen Peroxide Preoxidizing on CO₂ Adsorption of Nitrogen-Doped Carbons Produced from Coconut Shell. ACS Sustainable Chemistry and Engineering, 2016, 4, 2806-2813.	3.2	92
29	Kinetics, thermodynamics, and physical characterization of corn stover (Zea mays) for solar biomass pyrolysis potential analysis. Bioresource Technology, 2019, 284, 466-473.	4.8	92
30	Improvement of H2-rich gas production with tar abatement from pine wood conversion over bi-functional Ca2Fe2O5 catalyst: Investigation of inner-looping redox reaction and promoting mechanisms. Applied Energy, 2018, 212, 931-943.	5.1	89
31	Recent progress in improving the stability of copper-based catalysts for hydrogenation of carbonâ€“oxygen bonds. Catalysis Science and Technology, 2018, 8, 3428-3449.	2.1	89
32	CO₂ Adsorption on Hazelnut-Shell-Derived Nitrogen-Doped Porous Carbons Synthesized by Single-Step Sodium Amide Activation. Industrial & Engineering Chemistry Research, 2020, 59, 7046-7053.	1.8	88
33	Highly efficient and reversible CO₂ adsorption by amine-grafted platelet SBA-15 with expanded pore diameters and short mesochannels. Green Chemistry, 2014, 16, 4009-4016.	4.6	82
34	Modified nanosepiolite as an inexpensive support of tetraethylenepentamine for CO2 sorption. Nano Energy, 2015, 11, 235-246.	8.2	82
35	C₂ Oxygenate Synthesis via Fischerâ€“Tropsch Synthesis on Co₂C and Co/Co₂C Interface Catalysts: How To Control the Catalyst Crystal Facet for Optimal Selectivity. ACS Catalysis, 2017, 7, 8285-8295.	5.5	81
36	Synthesis of linear low-density polyethylene-g-poly (acrylic acid)-co-starch/organo-montmorillonite hydrogel composite as an adsorbent for removal of Pb(Î™Î™) from aqueous solutions. Journal of Environmental Sciences, 2015, 27, 9-20.	3.2	78

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37	Magnetic titanium dioxide based nanomaterials: synthesis, characteristics, and photocatalytic application in pollutant degradation. Journal of Materials Chemistry A, 2015, 3, 17511-17524.	5.2	77
38	Engineering Ni/SiO2 catalysts for enhanced CO2 methanation. Fuel, 2021, 285, 119151.	3.4	76
39	CO2 gasification of Powder River Basin coal catalyzed by a cost-effective and environmentally friendly iron catalyst. Applied Energy, 2015, 145, 295-305.	5.1	74
40	Perspectives on the Active Sites and Catalyst Design for the Hydrogenation of Dimethyl Oxalate. ACS Catalysis, 2020, 10, 4465-4490.	5.5	69
41	Interfacial and electronic band structure optimization for the adsorption and visible-light photocatalytic activity of macroscopic ZnSnO3/graphene aerogel. Composites Part B: Engineering, 2021, 215, 108765.	5.9	65
42	Application of computational chemistry in understanding the mechanisms of mercury removal technologies: a review. Energy and Environmental Science, 2015, 8, 3109-3133.	15.6	64
43	Enhancement of CO2 adsorption and amine efficiency of titania modified by moderate loading of diethylenetriamine. Journal of Materials Chemistry A, 2013, 1, 6208.	5.2	63
44	Efficient CO₂ Capture by Nitrogen-Doped Biocarbons Derived from Rotten Strawberries. Industrial & Engineering Chemistry Research, 2017, 56, 14115-14122.	1.8	62
45	High efficiency photocatalytic conversion of CO₂ with H₂O over Pt/TiO₂ nanoparticles. RSC Advances, 2014, 4, 44442-44451.	1.7	59
46	New Copper(I)/DBU Catalyst System for the Carboxylative Cyclization of Propargylic Amines with Atmospheric CO₂: An Experimental and Theoretical Study. ACS Sustainable Chemistry and Engineering, 2016, 4, 5553-5560.	3.2	59
47	Air Pollution and Control in Different Areas of China. Critical Reviews in Environmental Science and Technology, 2010, 40, 452-518.	6.6	58
48	Effect of copper on highly effective Fe-Mn based catalysts during production of light olefins via Fischer-Tropsch process with low CO2 emission. Applied Catalysis B: Environmental, 2020, 278, 119302.	10.8	58
49	Nitrogen-doped porous carbon spheres derived from <scp>d</scp>-glucose as highly-efficient CO₂ sorbents. RSC Advances, 2015, 5, 37964-37969.	1.7	57
50	Advance in Using Plasma Technology for Modification or Fabrication of Carbonâ€Based Materials and Their Applications in Environmental, Material, and Energy Fields. Advanced Functional Materials, 2021, 31, 2006287.	7.8	55
51	CO₂ Separation by a New Solid Kâ"Fe Sorbent. Energy & Fuels, 2011, 25, 1919-1925.	2.5	54
52	Enhanced photocatalytic CO₂ reduction over Co-doped NH₂-MIL-125(Ti) under visible light. RSC Advances, 2017, 7, 42819-42825.	1.7	53
53	Hydrogen-Bonding Interactions in Pyridinium-Based Ionic Liquids and Dimethyl Sulfoxide Binary Systems: A Combined Experimental and Computational Study. ACS Omega, 2018, 3, 1823-1833.	1.6	53
54	Resolving a Decade-Long Question of Oxygen Defects in Raman Spectra of Ceria-Based Catalysts at Atomic Level. Journal of Physical Chemistry C, 2019, 123, 18889-18894.	1.5	53

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55	Facile synthesis of nitrogen-enriched nanoporous carbon materials for high performance supercapacitors. Journal of Colloid and Interface Science, 2019, 538, 199-208.	5.0	52
56	NMR Techniques and Prediction Models for the Analysis of Species Formed in CO₂ Capture Processes with Amine-Based Sorbents: A Critical Review. ACS Sustainable Chemistry and Engineering, 2020, 8, 6173-6193.	3.2	50
57	Application of Ag/AgBr/GdVO 4 composite photocatalyst in wastewater treatment. Journal of Environmental Sciences, 2018, 63, 68-75.	3.2	48
58	Facile synthesis of an amine hybrid aerogel with high adsorption efficiency and regenerability for air capture via a solvothermal-assisted solâ€“gel process and supercritical drying. Green Chemistry, 2015, 17, 3436-3445.	4.6	47
59	Temperature modulation of defects in NH₂-UiO-66(Zr) for photocatalytic CO₂ reduction. RSC Advances, 2019, 9, 37733-37738.	1.7	47
60	Visible-light-driven photocatalytic CO₂ reduction over ketoenamine-based covalent organic frameworks: role of the host functional groups. Catalysis Science and Technology, 2021, 11, 1717-1724.	2.1	46
61	Mechanistic Study on Water Gas Shift Reaction on the Fe₃O₄ (111) Reconstructed Surface. Journal of Physical Chemistry C, 2015, 119, 28934-28945.	1.5	44
62	Synthesis of methanol from CO₂hydrogenation promoted by dissociative adsorption of hydrogen on a Ga₃Ni₅(221) surface. Physical Chemistry Chemical Physics, 2017, 19, 18539-18555.	1.3	43
63	Synergistic enhancement of chemical looping-based CO₂ splitting with biomass cascade utilization using cyclic stabilized Ca₂Fe₂O₅ aerogel. Journal of Materials Chemistry A, 2019, 7, 1216-1226.	5.2	43
64	A Selfâ€Supported Î»â€MnO₂ Film Electrode used for Electrochemical Lithium Recovery from Brines. ChemPlusChem, 2018, 83, 521-528.	1.3	42
65	Evaluation of natural goethite on the removal of arsenate and selenite from water. Journal of Environmental Sciences, 2019, 76, 133-141.	3.2	42
66	Application of mass spectrometry in the characterization of chemicals in coalâ€derived liquids. Mass Spectrometry Reviews, 2017, 36, 543-579.	2.8	39
67	Lithium adsorption performance of a three-dimensional porous H₂TiO₃-type lithium ion-sieve in strong alkaline Bayer liquor. RSC Advances, 2017, 7, 18883-18891.	1.7	39
68	Low-energy-consumption and environmentally friendly CO2 capture via blending alcohols into amine solution. Applied Energy, 2019, 254, 113696.	5.1	39
69	An Experimental and Theoretical Study on the Unexpected Catalytic Activity of Triethanolamine for the Carboxylative Cyclization of Propargylic Amines with CO₂. ChemSusChem, 2017, 10, 2001-2007.	3.6	38
70	Progress in catalytic synthesis of advanced carbon nanofibers. Journal of Materials Chemistry A, 2017, 5, 13863-13881.	5.2	38
71	Amine-impregnated silicic acid composite as an efficient adsorbent for CO 2 capture. Applied Energy, 2018, 223, 293-301.	5.1	37
72	CO2 hydrogenation to light olefins with high-performance Fe0.30Co0.15Zr0.45K0.10O1.63. Journal of Catalysis, 2019, 377, 224-232.	3.1	37

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73	Mechanism and catalytic performance for direct dimethyl ether synthesis by CO2 hydrogenation over CuZnZr/ferrierite hybrid catalyst. Journal of Environmental Sciences, 2020, 92, 106-117.	3.2	37
74	The cost-effective Cu-based catalysts for the efficient removal of acetylene from ethylene: The effects of Cu valence state, surface structure and surface alloying on the selectivity and activity. Chemical Engineering Journal, 2018, 351, 732-746.	6.6	36
75	Computation-predicted, stable, and inexpensive single-atom nanocatalyst Pt@Mo₂C â€“ an important advanced material for H₂ production. Journal of Materials Chemistry A, 2017, 5, 14658-14672.	5.2	34
76	Understanding the catalytic mechanisms of CO2 hydrogenation to methanol on unsupported and supported Ga-Ni clusters. Applied Energy, 2019, 253, 113623.	5.1	34
77	First principle study of feasibility of dinitrogen reduction to ammonia on two-dimensional transition metal phthalocyanine monolayer. Applied Surface Science, 2020, 500, 144032.	3.1	34
78	Fe₂O₃, a cost effective and environmentally friendly catalyst for the generation of NH₃â€“ a future fuel â€“ using a new Al₂O₃-looping based technology. Chemical Communications, 2017, 53, 10664-10667.	2.2	31
79	Surface modification of porous g-C₃N₄ materials using a waste product for enhanced photocatalytic performance under visible light. Green Chemistry, 2019, 21, 5934-5944.	4.6	31
80	Two-Dimensional Transition Metal Porphyrin Sheets as a Promising Single-Atom-Catalyst for Dinitrogen Electrochemical Reduction to Ammonia: A Theoretical Study. Journal of Physical Chemistry C, 2020, 124, 1492-1499.	1.5	30
81	Probe into the effects of surface composition and ensemble effect of active sites on the catalytic performance of C2H2 semi-hydrogenation over the Pd-Ag bimetallic catalysts. Chemical Engineering Science, 2020, 218, 115549.	1.9	30
82	Highly dispersed Ru nanoparticles on a bipyridine-linked covalent organic framework for efficient photocatalytic CO₂reduction. Sustainable Energy and Fuels, 2021, 5, 2871-2876.	2.5	30
83	Application of percarbonate and peroxymonocarbonate in decontamination technologies. Journal of Environmental Sciences, 2021, 105, 100-115.	3.2	30
84	Desorption Kinetics of the Monoethanolamine/Macroporous TiO₂-Based CO₂ Separation Process. Energy & Fuels, 2011, 25, 2988-2996.	2.5	29
85	Mild degradation of Powder River Basin sub-bituminous coal in environmentally benign supercritical CO2-ethanol system to produce valuable high-yield liquid tar. Applied Energy, 2018, 225, 460-470.	5.1	29
86	Crystal facet dependence of carbon chain growth mechanism over the Hcp and Fcc Co catalysts in the Fischer-Tropsch synthesis. Applied Catalysis B: Environmental, 2020, 269, 118847.	10.8	29
87	Supercritical water oxidation of 2-, 3- and 4-nitroaniline: A study on nitrogen transformation mechanism. Chemosphere, 2018, 205, 426-432.	4.2	28
88	Costâ€Effective Palladiumâ€Doped Cu Bimetallic Materials to Tune Selectivity and Activity by using Doped Atom Ensembles as Active Sites for Efficient Removal of Acetylene from Ethylene. ChemCatChem, 2018, 10, 2424-2432.	1.8	27
89	Visual Assay of Glutathione in Vegetables and Fruits Using Quantum Dot Ratiometric Hybrid Probes. Journal of Agricultural and Food Chemistry, 2018, 66, 6431-6438.	2.4	27
90	Thermodynamic and Kinetic Study on Carbon Dioxide Hydrogenation to Methanol over a Ga₃Ni₅(111) Surface: The Effects of Step Edge. Journal of Physical Chemistry C, 2018, 122, 315-330.	1.5	26

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91	A novel solar powered biomass pyrolysis reactor for producing fuels and chemicals. Journal of Analytical and Applied Pyrolysis, 2018, 132, 19-32.	2.6	26
92	Surface oxygen vacancies modified Bi2MoO6 double-layer spheres: Enhanced visible LED light photocatalytic activity for ciprofloxacin degradation. Journal of Alloys and Compounds, 2022, 892, 162217.	2.8	26
93	Enhanced low-temperature CO2 methanation performance of Ni/ZrO2 catalysts via a phase engineering strategy. Chemical Engineering Journal, 2022, 446, 137031.	6.6	26
94	High-quality oil and gas from pyrolysis of Powder River Basin coal catalyzed by an environmentally-friendly, inexpensive composite iron-sodium catalysts. Fuel Processing Technology, 2017, 167, 334-344.	3.7	25
95	Supported Monoethanolamine for CO₂ Separation. Industrial & Engineering Chemistry Research, 2011, 50, 11343-11349.	1.8	24
96	Use of one-pot wet gel or precursor preparation and supercritical drying procedure for development of a high-performance CO₂sorbent. RSC Advances, 2014, 4, 43448-43453.	1.7	24
97	The adsorption of phosphate on hydroxylated alpha-SiO2 (0â€¯0â€¯1) surface and influence of typical anions: A theoretical study. Applied Surface Science, 2020, 501, 144233.	3.1	24
98	Promising zirconia-mixed Al-based nitrogen carriers for chemical looping of NH3: Reduced NH3 decomposition and improved NH3 yield. Fuel, 2020, 264, 116821.	3.4	24
99	Highly efficient methane decomposition to H2 and CO2 reduction to CO via redox looping of Ca2FexAl2-xO5 supported NiyFe3-yO4 nanoparticles. Applied Catalysis B: Environmental, 2020, 271, 118938.	10.8	24
100	Characterization of the mechanism of gasification of a powder river basin coal with a composite catalyst for producing desired syngases and liquids. Applied Catalysis A: General, 2014, 475, 116-126.	2.2	23
101	Use of monolithic silicon carbide aerogel as a reusable support for development of regenerable CO₂adsorbent. RSC Advances, 2014, 4, 64193-64199.	1.7	22
102	Characterization of the Oxygenated Chemicals Produced from Supercritical Methanolysis of Modified Lignites. Energy & Fuels, 2016, 30, 2636-2646.	2.5	22
103	CO oxidative coupling to dimethyl oxalate over Pdâ€“Me (Me = Cu, Al) catalysts: a combined DFT and kinetic study. Physical Chemistry Chemical Physics, 2018, 20, 7317-7332.	1.3	22
104	Applications of Nanomaterial-Based Membranes in Pollution Control. Critical Reviews in Environmental Science and Technology, 2013, 43, 2389-2438.	6.6	21
105	TiO(OH)2 â€“ highly effective catalysts for optimizing CO2 desorption kinetics reducing CO2 capture cost: A new pathway. Scientific Reports, 2017, 7, 2943.	1.6	21
106	Mechanistic research on NO removal by K2S2O8 with electrochemical catalysis. Chemical Engineering Journal, 2020, 382, 122873.	6.6	21
107	A DFT Study on the Catalytic CO Oxidative Coupling to Dimethyl Oxalate on Al-Doped Coreâ€“Shell Pd Clusters. Journal of Physical Chemistry C, 2018, 122, 1169-1179.	1.5	20
108	Synthesis of nitrogen-doped carbon with three-dimensional mesostructures for CO2 capture. Journal of Materials Science, 2015, 50, 1221-1227.	1.7	19

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109	A nanostructured CeO₂ promoted Pd/Î±-alumina diethyl oxalate catalyst with high activity and stability. RSC Advances, 2014, 4, 48901-48904.	1.7	18
110	The new role of surface adsorbed CH (xâ€¯=â€¯1â€“3) intermediates as a co-adsorbed promoter in self-promoting syngas conversion to form CH intermediates and C2 oxygenates on the Rh-doped Cu catalyst. Journal of Catalysis, 2019, 377, 1-12.	3.1	18
111	Robust â€œdry amineâ€•solid CO2 sorbent synthesized by a facile, cost-effective and environmental friendly pathway. Chemical Engineering Journal, 2021, 404, 126447.	6.6	18
112	Effects of CO and CO₂ on the desulfurization of H₂S using a ZnO sorbent: a density functional theory study. Physical Chemistry Chemical Physics, 2016, 18, 11150-11156.	1.3	16
113	Design of efficient mono-aminosilane precursors for atomic layer deposition of SiO₂ thin films. RSC Advances, 2017, 7, 22672-22678.	1.7	16
114	Clean and low-cost synthesis of high purity beta-silicon carbide with carbon fiber production residual and a sandstone. Journal of Cleaner Production, 2019, 238, 117875.	4.6	16
115	Green, safe, fast, and inexpensive removal of CO2 from aqueous KHCO3 solutions using a nanostructured catalyst TiO(OH)2: A milestone toward truly low-cost CO2 capture that can ease implementation of the Paris Agreement. Nano Energy, 2018, 53, 508-512.	8.2	15
116	Thermodynamics of NaHCO3 decomposition during Na2CO3-based CO2 capture. Journal of Environmental Sciences, 2019, 78, 74-80.	3.2	15
117	C₂H₂ Selective Hydrogenation over the M@Pd and M@Cu (M = Au, Ag, Cu, and) Tj ETQq1 1 0.784314 rgBT / Activity and Selectivity. Journal of Physical Chemistry C, 2019, 123, 16107-16117.	1.5	15
118	Green and efficient two-step degradation approach for converting Powder River Basin coal into fuels/chemicals and insights into their chemical compositions. Applied Energy, 2020, 264, 114739.	5.1	15
119	H2 Thermal Desorption Spectra on Pt(111): A Density Functional Theory and Kinetic Monte Carlo Simulation Study. Catalysts, 2018, 8, 450.	1.6	14
120	HCOOH decomposition over the pure and Ag-modified Pd nanoclusters: Insight into the effects of cluster size and composition on the activity and selectivity. Chemical Engineering Science, 2021, 229, 116016.	1.9	14
121	Modification of Catalytic Properties of Hollandite Manganese Oxide by Ag Intercalation for Oxidative Acetalization of Ethanol to Diethoxyethane. ACS Catalysis, 2021, 11, 5347-5357.	5.5	14
122	Measurement and Correlation of High Pressure Phase Equilibria for CO₂ + Alkanes and CO₂ + Crude Oil Systems. Journal of Chemical & Engineering Data, 2017, 62, 3807-3822.	1.0	13
123	First-principles and experimental studies of [ZrO(OH)]⁺ or ZrO(OH)₂ for enhancing CO₂ desorption kinetics â€“ imperative for significant reduction of CO₂ capture energy consumption. Journal of Materials Chemistry A, 2018, 6, 17671-17681.	5.2	13
124	C₂H₂ Selective Hydrogenation to C₂H₄: Engineering the Surface Structure of Pd-Based Alloy Catalysts to Adjust the Catalytic Performance. Journal of Physical Chemistry C, 2021, 125, 15251-15261.	1.5	13
125	Lithium Enrichment in the No. 21 Coal of the Hebi No. 6 Mine, Anhe Coalfield, Henan Province, China. Minerals (Basel, Switzerland), 2020, 10, 521.	0.8	12
126	A new approach of reduction of carbon dioxide emission and optimal use of carbon and hydrogen content for the desired syngas production from coal. Journal of Cleaner Production, 2020, 265, 121786.	4.6	12

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127	Abatement of SO2â€“NOx binary gas mixtures using a ferruginous active absorbent: Part I. Synergistic effects and mechanism. Journal of Environmental Sciences, 2015, 30, 55-64.	3.2	11
128	Syngas Production from Chemicalâ€Looping Reforming of Methane Using Ironâ€Doped Cerium Oxides. Energy Technology, 2018, 6, 1610-1617.	1.8	11
129	DFT study on CO oxidative coupling to DMO over Pd4/TiO2 and Pd4/TiO2-Ov: A role of oxygen vacancy on support. Computational Materials Science, 2019, 159, 1-11.	1.4	11
130	Synthesis of Highly Nanoporous Î²-Silicon Carbide from Corn Stover and Sandstone. ACS Sustainable Chemistry and Engineering, 2020, 8, 14896-14904.	3.2	11
131	Effective anaerobic treatment of produced water from petroleum production using an anaerobic digestion inoculum from a brewery wastewater treatment facility. Journal of Hazardous Materials, 2021, 407, 124348.	6.5	11
132	Metalâ€“support interactions in Feâ€“Cuâ€“K admixed with SAPO-34 catalysts for highly selective transformation of CO₂ and H₂ into lower olefins. Journal of Materials Chemistry A, 2021, 9, 21877-21887.	5.2	11
133	A new and different insight into the promotion mechanisms of Ga for the hydrogenation of carbon dioxide to methanol over a Ga-doped Ni(211) bimetallic catalyst. Nanoscale, 2019, 11, 9969-9979.	2.8	10
134	A DFT study and microkinetic analysis of CO oxidation to dimethyl oxalate over Pd stripe and Pd single atom-doped Cu(111) surfaces. Applied Surface Science, 2019, 479, 1057-1067.	3.1	10
135	C2H2 semi-hydrogenation on the PdxMy cluster/graphdiyne catalysts: Effects of cluster composition and size on the activity and selectivity. Green Energy and Environment, 2022, 7, 500-511.	4.7	10
136	0.03 V Electrolysis Voltage Driven Hydrazine Assisted Hydrogen Generation on NiCo phosphide Nanowires Supported NiCoHydroxide Nanosheets. ChemElectroChem, 2020, 7, 3089-3097.	1.7	10
137	The roles of Rh crystal phase and facet in syngas conversion to ethanol. Chemical Engineering Science, 2022, 248, 117186.	1.9	10
138	High thermal stability Si-Al based N-carrier for efficient and stable chemical looping ammonia generation. Applied Energy, 2022, 323, 119519.	5.1	10
139	Selective denitrification of flue gas by O3 and ethanol mixtures in a duct: Investigation of processes and mechanisms. Journal of Hazardous Materials, 2016, 311, 218-229.	6.5	9
140	A DFT study on dimethyl oxalate synthesis over PdML/Ni(1â€¯1â€¯1) and PdML/Co(1â€¯1â€¯1) surfaces. Applied Surface Science, 2019, 465, 498-508.	3.1	9
141	Unveiling the critical role of p-d hybridization interaction in M13â^'nGan clusters on CO2 adsorption. Fuel, 2020, 280, 118446.	3.4	9
142	The volume expansion effect of amine during CO2 adsorption process: An experimental study combined with theoretical calculations. Journal of Colloid and Interface Science, 2020, 572, 190-197.	5.0	9
143	A new insight into the theoretical design of highly dispersed and stable ceria supported metal nanoparticles. Journal of Colloid and Interface Science, 2018, 512, 775-783.	5.0	8
144	Effect of surfactants on the properties of a gas-sealing coating modified with fly ash and cement. Journal of Materials Science, 2018, 53, 15142-15156.	1.7	8

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145	Carbon nanofiber generation from the precursor containing unprecedently high percentage of inexpensive coal-derived carbon material. Journal of Cleaner Production, 2019, 236, 117621.	4.6	8
146	First-Principle Study on Heterofullerenes: Effective and Multifunctional in Hg Removal. Industrial & Engineering Chemistry Research, 2019, 58, 11101-11110.	1.8	8
147	Dimethyl oxalate synthesis via CO oxidation on Pd-doped Ag(111) surface: A theoretic study. Molecular Catalysis, 2020, 484, 110731.	1.0	8
148	New insight into the reaction mechanism of carbon disulfide hydrolysis and the impact of H₂S with density functional modeling. New Journal of Chemistry, 2019, 43, 2347-2352.	1.4	7
149	Renewable Cyclopentanol From Catalytic Hydrogenation-Rearrangement of Biomass Furfural Over Ruthenium-Molybdenum Bimetallic Catalysts. Frontiers in Bioengineering and Biotechnology, 2020, 8, 615235.	2.0	7
150	Insight into Crystal Phase Dependent CO Dissociation on Rh Catalyst from DFT and Microkinetic Modeling. Journal of Physical Chemistry C, 2020, 124, 6756-6769.	1.5	7
151	Effects of strong interactions between Ti and ceria on the structures of Ti/CeO₂. Physical Chemistry Chemical Physics, 2016, 18, 32494-32502.	1.3	6
152	Catalytic Oxidation of Hydrogen Sulfide on Fe/WSAC Catalyst Surface Modification via NH₃-NTP: Influence of Gas Gap and Dielectric Thickness. Industrial & Engineering Chemistry Research, 2018, 57, 2873-2881.	1.8	5
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