

Jun Cheng

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

289
papers

10,137
citations

59
h-index

89
g-index

312
ext. papers

13,066
ext. citations

9.3
avg, IF

6.79
L-index

#	Paper	IF	Citations
289	Iridium boosts the selectivity and stability of cobalt catalysts for syngas to liquid fuels. <i>Chem</i> , 2022 ,	16.2	4
288	Electron transfer from Geobacter sulfurreducens to mixed methanogens improved methane production with feedstock gases of H and CO.. <i>Bioresource Technology</i> , 2022 , 347, 126680	11	0
287	Unraveling molecular structures and ion effects of electric double layers at metal water interfaces. <i>Cell Reports Physical Science</i> , 2022 , 100759	6.1	2
286	Thermodynamic Conditions for the Nernstian Response of the Flat Band Potential of the Metal Oxide Semiconductor: A Theoretical Study. <i>Journal of Physical Chemistry C</i> , 2022 , 126, 578-587	3.8	1
285	Synergistic effect of ultrasound and switchable hydrophilicity solvent promotes microalgal cell disruption and lipid extraction for biodiesel production. <i>Bioresource Technology</i> , 2022 , 343, 126087	11	1
284	Correlating the electronic structure of perovskite La _{1-x} Br _x CoO ₃ with activity for the oxygen evolution reaction: The critical role of Co 3d hole state. <i>Journal of Energy Chemistry</i> , 2022 , 65, 637-645	12	7
283	Dual Metal Active Sites and an Enhanced Electric Field Boosting CO ₂ Reduction to CH ₄ in an Electromethanogenesis System. <i>ACS Sustainable Chemistry and Engineering</i> , 2022 , 10, 2890-2902	8.3	0
282	Enhancing Extracellular Electron Transfer of Geobacter sulfurreducens in Bioelectrochemical Systems Using N-Doped Fe ₃ O ₄ @Carbon Dots. <i>ACS Sustainable Chemistry and Engineering</i> , 2022 , 10, 3935-3950 ¹	8.3	1
281	Non-contact biomimetic mechanism for selective hydrogenation of nitroaromatics on heterogeneous metal nanocatalysts. <i>Science China Chemistry</i> , 2022 , 65, 726-732	7.9	2
280	Acid-base bifunctional catalyst with coordinatively unsaturated cobalt-nitrogen sites for the simultaneous conversion of microalgal triglycerides and free fatty acids into biodiesel.. <i>Bioresource Technology</i> , 2022 , 126862	11	0
279	Size-dependent phase transitions boost catalytic activity of sub-nanometer gold clusters.. <i>Journal of Chemical Physics</i> , 2022 , 156, 144304	3.9	0
278	Combining NMR and Molecular Dynamics Simulations for Revealing the Alkali-Ion Transport in Solid-State Battery Materials. <i>Current Opinion in Electrochemistry</i> , 2022 , 101048	7.2	
277	Water-In-Salt Environment Reduces the Overpotential for Reduction of CO ₂ to CO ₂ in Ionic Liquid/Water Mixtures. <i>ACS Catalysis</i> , 2022 , 12, 6770-6780	13.1	1
276	Ab Initio Modeling of Semiconductor-Water Interfaces. <i>Springer Handbooks</i> , 2022 , 399-422	1.3	
275	Charge State Dependence of Phase Transition Catalysis of Dynamic Cu Clusters in CO ₂ Dissociation. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 27615-27623	3.8	2
274	Substrate strain tunes operando geometric distortion and oxygen reduction activity of CuNC single-atom sites. <i>Nature Communications</i> , 2021 , 12, 6335	17.4	20
273	Surface Acidity and As(V) Complexation of Iron Oxyhydroxides: Insights from First-Principles Molecular Dynamics Simulations. <i>Environmental Science & Technology</i> , 2021 , 55, 15921-15928	10.3	1

272	Enhancing microalgae production by installing concave walls in plate photobioreactors. <i>Bioresource Technology</i> , 2021 , 345, 126479	11	0
271	Microbial electrochemical degradation of lipids for promoting methane production in anaerobic digestion. <i>Bioresource Technology</i> , 2021 , 126467	11	0
270	Deep potential generation scheme and simulation protocol for the LiGePS-type superionic conductors. <i>Journal of Chemical Physics</i> , 2021 , 154, 094703	3.9	19
269	Facilitating the Deprotonation of OH to O through Fe -Induced States in Perovskite LaNiO Enables a Fast Oxygen Evolution Reaction. <i>Small</i> , 2021 , 17, e2006930	11	10
268	Unravelling the Fast Alkali-Ion Dynamics in Paramagnetic Battery Materials Combined with NMR and Deep-Potential Molecular Dynamics Simulation. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 12547-12553	16.4	6
267	Initial Stages of Oxidation Reactions of Ethylene Carbonate and Fluoroethylene Carbonate on Li _x CoO ₂ Surfaces: A DFT Study. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 050505	3.9	4
266	SO ₂ Impurity in Simulated Flue Gas with 15% CO ₂ Affects Dynamic Bubble Dissolution and Arthrospira Photosynthetic Growth. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 5580-5589	8.3	0
265	Modeling Electrified Pt(111)-H/Water Interfaces from Ab Initio Molecular Dynamics. <i>Jacs Au</i> , 2021 , 1, 569-577		21
264	Unravelling the Fast Alkali-Ion Dynamics in Paramagnetic Battery Materials Combined with NMR and Deep-Potential Molecular Dynamics Simulation. <i>Angewandte Chemie</i> , 2021 , 133, 12655-12661	3.6	
263	Boosting Electrochemical CO ₂ Reduction by Controlling Coordination Environment in Atomically Dispersed [email[protected]]x ₂ Cy Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 6438-6445	8.3	4
262	Size-Sensitive Dynamic Catalysis of Subnanometer Cu Clusters in CO Dissociation. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 3891-3897	6.4	4
261	Metabolic pathways of Chlorella sp. cells induced by exogenous spermidine against nitric oxide damage from coal-fired flue gas. <i>Bioresource Technology</i> , 2021 , 328, 124827	11	2
260	Library Creation of Ultrasmall Multi-metallic Nanoparticles Confined in Mesoporous MFI Zeolites. <i>Angewandte Chemie</i> , 2021 , 133, 14692-14698	3.6	1
259	Origin of Asymmetric Electric Double Layers at Electrified Oxide/Electrolyte Interfaces. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 4616-4622	6.4	9
258	Library Creation of Ultrasmall Multi-metallic Nanoparticles Confined in Mesoporous MFI Zeolites. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 14571-14577	16.4	1
257	Atomic Scale Tracking of Single Layer Oxide Formation: Self-Peeling and Phase Transition in Solution.. <i>Small Methods</i> , 2021 , 5, e2001234	12.8	2
256	Modeling electrified metal/water interfaces from ab initio molecular dynamics: Structure and Helmholtz capacitance. <i>Current Opinion in Electrochemistry</i> , 2021 , 27, 100693	7.2	11
255	A sodium percarbonate/ultraviolet system generated free radicals for degrading capsaicin to alleviate inhibition of methane production during anaerobic digestion of lipids and food waste. <i>Science of the Total Environment</i> , 2021 , 761, 143269	10.2	6

254	Simultaneous promotion of photosynthesis and astaxanthin accumulation during two stages of <i>Haematococcus pluvialis</i> with ammonium ferric citrate. <i>Science of the Total Environment</i> , 2021 , 750, 141689 ²	10.2	10
253	Hierarchically porous carbon derived from potassium-citrate-loaded poplar catkin for high performance supercapacitors. <i>Journal of Colloid and Interface Science</i> , 2021 , 582, 940-949	9.3	25
252	Orange light spectra filtered through transparent colored polyvinyl chloride sheet enhanced pigment content and growth of <i>Arthrospira</i> cells. <i>Bioresource Technology</i> , 2021 , 319, 124179	11	6
251	Strengthening mass transfer with the Tesla-valve baffles to increase the biomass yield of <i>Arthrospira platensis</i> in a column photobioreactor. <i>Bioresource Technology</i> , 2021 , 320, 124337	11	9
250	Fecitrate converted from FeO particles in coal-fired flue gas promoted microalgal biomass and lipid productivities. <i>Science of the Total Environment</i> , 2021 , 760, 143405	10.2	1
249	Developing staggered woven mesh aerator with three variable-micropore layers in recycling water pipeline to enhance CO conversion for improving <i>Arthrospira</i> growth. <i>Science of the Total Environment</i> , 2021 , 760, 143941	10.2	1
248	Interfacial structures and acidity constants of goethite from first principles molecular dynamics simulations. <i>American Mineralogist</i> , 2021 ,	2.9	3
247	Study on CO ₂ gasification properties of coal gasification wastewater slurry. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2021 , 16, e2617	1.3	0
246	Atomically thin photoanode of InSe/graphene heterostructure. <i>Nature Communications</i> , 2021 , 12, 91	17.4	13
245	Pebax-based mixed matrix membranes loaded with graphene oxide/core shell ZIF-8@ZIF-67 nanocomposites improved CO ₂ permeability and selectivity. <i>Journal of Applied Polymer Science</i> , 2021 , 138, 50553	2.9	8
244	Origin of the Adsorption-State-Dependent Photoactivity of Methanol on TiO ₂ (110). <i>ACS Catalysis</i> , 2021 , 11, 2620-2630	13.1	5
243	Ultralong-Lifespan Magnesium Batteries Enabled by the Synergetic Manipulation of Oxygen Vacancies and Electronic Conduction. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 12049-12058	9.5	3
242	Hexagonal Nickel as a Highly Durable and Active Catalyst for Hydrogen Evolution. <i>ACS Catalysis</i> , 2021 , 11, 8798-8806	13.1	2
241	Linear Correlation between Water Adsorption Energies and Volta Potential Differences for Metal/water Interfaces. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 7299-7304	6.4	8
240	Zeolitic imidazolate framework-derived porous carbon enhances methanogenesis by facilitating interspecies electron transfer: Understanding fluorimetric and electrochemical responses of multi-layered extracellular polymeric substances. <i>Science of the Total Environment</i> , 2021 , 781, 146447	10.2	3
239	Ab initio modeling of electrochemical interfaces and determination of electrode potentials 2021 , 173-200		
238	Recent Progress toward Ab Initio Modeling of Electrocatalysis. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 8924-8931	6.4	8
237	Engineering of anatase/rutile TiO heterophase junction via in-situ phase transformation for enhanced photocatalytic hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2021 , 599, 795-804 ³	9.3	13

236	The energetics of electron and proton transfer to CO in aqueous solution. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 22035-22044	3.6	2
235	Frontispiece: Subnanometer Bimetallic Platinum-Zinc Clusters in Zeolites for Propane Dehydrogenation. <i>Angewandte Chemie - International Edition</i> , 2020 , 59,	16.4	2
234	Electrocatalytic reduction of CO ₂ to ethylene and ethanol through hydrogen-assisted C-C coupling over fluorine-modified copper. <i>Nature Catalysis</i> , 2020 , 3, 478-487	36.5	286
233	Site-selective electrooxidation of methylarenes to aromatic acetals. <i>Nature Communications</i> , 2020 , 11, 2706	17.4	28
232	Development of a single helical baffle to increase CO gas and microalgal solution mixing and <i>Chlorella</i> PY-ZU1 biomass yield. <i>Bioresource Technology</i> , 2020 , 307, 123253	11	6
231	Using polyethylene glycol to promote <i>Nannochloropsis oceanica</i> growth with 15 vol% CO. <i>Science of the Total Environment</i> , 2020 , 720, 137598	10.2	7
230	Inhibition of N-Vanillylnonanamide in anaerobic digestion of lipids in food waste: Microorganisms damage and blocked electron transfer. <i>Journal of Hazardous Materials</i> , 2020 , 399, 123098	12.8	10
229	Coupling N and CO in HO to synthesize urea under ambient conditions. <i>Nature Chemistry</i> , 2020 , 12, 717-724	14.6	146
228	Biomimetic micro cell cathode for high performance lithium-sulfur batteries. <i>Nano Energy</i> , 2020 , 72, 104680	17.1	25
227	Hydrothermal alkali pretreatment contributes to fermentative methane production of a typical lipid from food waste through co-production of hydrogen with methane. <i>Bioresource Technology</i> , 2020 , 306, 123164	11	5
226	In Situ Raman Monitoring and Manipulating of Interfacial Hydrogen Spillover by Precise Fabrication of Au/TiO ₂ /Pt Sandwich Structures. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 10343-10347	16.4	30
225	In Situ Raman Monitoring and Manipulating of Interfacial Hydrogen Spillover by Precise Fabrication of Au/TiO ₂ /Pt Sandwich Structures. <i>Angewandte Chemie</i> , 2020 , 132, 10429-10433	3.6	5
224	Theoretical study of kinetics of proton coupled electron transfer in photocatalysis. <i>Journal of Chemical Physics</i> , 2020 , 152, 124705	3.9	5
223	Subnanometer Bimetallic Platinum-Zinc Clusters in Zeolites for Propane Dehydrogenation. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 19450-19459	16.4	85
222	Covalent Organic Framework for Efficient Two-Photon Absorption. <i>Matter</i> , 2020 , 2, 1049-1063	12.7	36
221	Boosting Defective Carbon by Anchoring Well-Defined Atomically Dispersed Ni ^{II} Sites for Electrocatalytic CO ₂ Reduction. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 10536-10543	8.3	21
220	Enhancing microalgal biomass productivity with an optimized flow field generated by double paddlewheels in a flat plate photoreactor with CO aeration based on numerical simulation. <i>Bioresource Technology</i> , 2020 , 314, 123762	11	8
219	Switchable solvent N, N, N', N'-tetraethyl-1, 3-propanediamine was dissociated into cationic surfactant to promote cell disruption and lipid extraction from wet microalgae for biodiesel production. <i>Bioresource Technology</i> , 2020 , 312, 123607	11	9

218	Improving light distribution and light/dark cycle of 900L tangential spiral-flow column photobioreactors to promote CO fixation with <i>Arthrospira</i> sp. cells. <i>Science of the Total Environment</i> , 2020 , 720, 137611	10.2	11
217	Understanding Catalytic Mechanisms of Alkane Oxychlorination from the Perspective of Energy Levels. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 6070-6077	3.8	4
216	A novel porous nickel-foam filled CO absorptive photobioreactor system to promote CO conversion by microalgal biomass. <i>Science of the Total Environment</i> , 2020 , 713, 136593	10.2	6
215	Hydrogen Sulfide Improves Lipid Accumulation in <i>Nannochloropsis oceanica</i> through Metabolic Regulation of Carbon Allocation and Energy Supply. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 2481-2489	8.3	6
214	Increased activity in the oxygen evolution reaction by Fe ⁴⁺ -induced hole states in perovskite La _{1-x} Sr _x FeO ₃ . <i>Journal of Materials Chemistry A</i> , 2020 , 8, 4407-4415	13	36
213	Subnanometer Bimetallic Platinum-Zinc Clusters in Zeolites for Propane Dehydrogenation. <i>Angewandte Chemie</i> , 2020 , 132, 19618-19627	3.6	24
212	Efficient Conversion of Carbon Dioxide on Atomically Dispersed Metal Species-Anchored Porous Carbon with Embedded Cu _x Co _y Nanoparticles by Accelerating Electron Separation. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 5994-6002	8.3	4
211	Electrocatalytic reduction of CO ₂ in neat and water-containing imidazolium-based ionic liquids. <i>Current Opinion in Electrochemistry</i> , 2020 , 23, 80-88	7.2	12
210	Enhanced Lipid Accumulation through a Regulated Metabolic Pathway of Phosphorus Luxury Uptake in the Microalga <i>Chlorella vulgaris</i> under Nitrogen Starvation and Phosphorus Repletion. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 8137-8147	8.3	11
209	Binary Pd/amorphous-SrRuO ₃ hybrid film for high stability and fast activity recovery ethanol oxidation electrocatalysis. <i>Nano Energy</i> , 2020 , 67, 104247	17.1	37
208	Highly Selective Electrochemical Reduction of CO ₂ to CH ₄ over Vacancy-Metal-Nitrogen Sites in an Artificial Photosynthetic Cell. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 1679-1686	8.3	8
207	C-H activations of methanol and ethanol and C-C couplings into diols by zinc-indium-sulfide under visible light. <i>Chemical Communications</i> , 2020 , 56, 1776-1779	5.8	29
206	Stereospecific access to bridged [n.2.1] skeletons through gold-catalyzed tandem reaction of indolyl homopropargyl amides. <i>Chinese Chemical Letters</i> , 2020 , 31, 1309-1312	8.1	3
205	Three-Stage Shear-Serrated Aerator Broke CO ₂ Bubbles To Promote Mass Transfer and Microalgal Growth. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 939-947	8.3	9
204	Development of an efficient catalyst with controlled sulfur vacancies and high pyridine nitrogen content for the photoelectrochemical reduction of CO into methanol. <i>Science of the Total Environment</i> , 2020 , 702, 134981	10.2	8
203	Improving biohydrogen production through dark fermentation of steam-heated acid pretreated <i>Alternanthera philoxeroides</i> by mutant <i>Enterobacter aerogenes</i> ZJU1. <i>Science of the Total Environment</i> , 2020 , 716, 134695	10.2	18
202	Modeling electrochemical interfaces from ab initio molecular dynamics: water adsorption on metal surfaces at potential of zero charge. <i>Current Opinion in Electrochemistry</i> , 2020 , 19, 129-136	7.2	24
201	Conversion of NaHCO ₃ to Na ₂ CO ₃ with a growth of <i>Arthrospira platensis</i> cells in 660nm raceway ponds with a CO ₂ bicarbonation absorber. <i>Microbial Biotechnology</i> , 2020 , 13, 470-478	6.3	4

200	Molecular origin of negative component of Helmholtz capacitance at electrified Pt(111)/water interface. <i>Science Advances</i> , 2020 , 6,	14.3	53
199	Nanoscale zero-valent iron improved lactic acid degradation to produce methane through anaerobic digestion. <i>Bioresource Technology</i> , 2020 , 317, 124013	11	16
198	Strengthening flash light effect with a pond-tubular hybrid photobioreactor to improve microalgal biomass yield. <i>Bioresource Technology</i> , 2020 , 318, 124079	11	7
197	Filling metal-organic framework mesopores with TiO for CO photoreduction. <i>Nature</i> , 2020 , 586, 549-554	50.4	165
196	Thermodynamic Investigation of Proton/Electron Interplay on the Pourbaix Diagram at the TiO ₂ /Electrolyte Interface. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 19003-19014	3.8	7
195	Computing Surface Acidity Constants of Proton Hopping Groups from Density Functional Theory-Based Molecular Dynamics: Application to the SnO(110)/HO Interface. <i>Journal of Chemical Theory and Computation</i> , 2020 , 16, 6520-6527	6.4	8
194	Microporous Diaphragm Aerator Improves Flue Gas CO ₂ Dissolution and Photosynthetic Characteristics of Arthrospira Cells in 660 m ² Raceway Ponds. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 11558-11568	8.3	5
193	Improving CH ₄ production and energy conversion from CO and H ₂ feedstock gases with mixed methanogenic community over Fe nanoparticles. <i>Bioresource Technology</i> , 2020 , 314, 123799	11	4
192	Selectivity Control in Photocatalytic Valorization of Biomass-Derived Platform Compounds by Surface Engineering of Titanium Oxide. <i>Chem</i> , 2020 , 6, 3038-3053	16.2	37
191	Spermidine Protects Chlorella sp. from Oxidative Damage Caused by SO ₂ in Flue Gas from Coal-Fired Power Plants. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 15179-15188	8.3	4
190	Adsorption-Induced Liquid-to-Solid Phase Transition of Cu Clusters in Catalytic Dissociation of CO. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 7954-7959	6.4	9
189	In Situ Raman Study of CO Electrooxidation on Pt(hkl) Single-Crystal Surfaces in Acidic Solution. <i>Angewandte Chemie</i> , 2020 , 132, 23760-23764	3.6	1
188	In Situ Raman Study of CO Electrooxidation on Pt(hkl) Single-Crystal Surfaces in Acidic Solution. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 23554-23558	16.4	20
187	Single Ni atoms with higher positive charges induced by hydroxyls for electrocatalytic CO reduction. <i>Nanoscale</i> , 2020 , 12, 18437-18445	7.7	12
186	Developing a Spiral-Ascending CO ₂ Dissolver to Enhance CO ₂ Mass Transfer in a Horizontal Tubular Photobioreactor for Improved Microalgal Growth. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 18926-18935	8.3	5
185	Calcinated MIL-100(Fe) as a CO adsorbent to promote biomass productivity of Arthrospira platensis cells. <i>Science of the Total Environment</i> , 2020 , 699, 134375	10.2	8
184	Biocrude Oil Production through the Maillard Reaction between Leucine and Glucose during Hydrothermal Liquefaction. <i>Energy & Fuels</i> , 2019 , 33, 8758-8765	4.1	21
183	Hydrogen Sulfide Promotes Cell Division and Photosynthesis of Nannochloropsis oceanica with 15% Carbon Dioxide. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 16344-16354	8.3	6

182	A novel jet-aerated tangential swirling-flow plate photobioreactor generates microbubbles that enhance mass transfer and improve microalgal growth. <i>Bioresource Technology</i> , 2019 , 288, 121531	11	18
181	Electric field-induced selective catalysis of single-molecule reaction. <i>Science Advances</i> , 2019 , 5, eaaw30724.3	24.3	72
180	Solar driven reduction of CO using Pt-Cu/C as a catalyst in a photoelectrochemical cell: experiment and mechanism study.. <i>RSC Advances</i> , 2019 , 9, 10635-10644	3.7	3
179	Transcriptome and key gene expression related to carbon metabolism and fatty acid synthesis of <i>Chlorella vulgaris</i> under a nitrogen starvation and phosphorus repletion regime. <i>Journal of Applied Phycology</i> , 2019 , 31, 2881-2893	3.2	5
178	Role of Adsorption Orientation in Surface Plasmon-Driven Coupling Reactions Studied by Tip-Enhanced Raman Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 2306-2312	6.4	34
177	Self-rotary propellers with clockwise/counterclockwise blades create spiral flow fields to improve mass transfer and promote microalgae growth. <i>Bioresource Technology</i> , 2019 , 286, 121384	11	9
176	In situ probing electrified interfacial water structures at atomically flat surfaces. <i>Nature Materials</i> , 2019 , 18, 697-701	27	172
175	Prediction of the heavy charging current effect on nickel-rich/silicon-graphite power batteries based on adiabatic rate calorimetry measurement. <i>Journal of Power Sources</i> , 2019 , 438, 226971	8.9	17
174	Molecular bilayer graphene. <i>Nature Communications</i> , 2019 , 10, 3057	17.4	23
173	Theory on optimizing the activity of electrocatalytic proton coupled electron transfer reactions. <i>Journal of Catalysis</i> , 2019 , 376, 17-24	7.3	9
172	Early Stages of Electrochemical Oxidation of Cu(111) and Polycrystalline Cu Surfaces Revealed by Raman Spectroscopy. <i>Journal of the American Chemical Society</i> , 2019 , 141, 12192-12196	16.4	64
171	Modification and improvement of microalgae strains for strengthening CO fixation from coal-fired flue gas in power plants. <i>Bioresource Technology</i> , 2019 , 291, 121850	11	55
170	First-principles study of alkali-metal intercalation in disordered carbon anode materials. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 19070-19080	13	35
169	In situ Spectroscopic Insight into the Origin of the Enhanced Performance of Bimetallic Nanocatalysts towards the Oxygen Reduction Reaction (ORR). <i>Angewandte Chemie</i> , 2019 , 131, 16208-16212	3.6	16
168	Three-dimensional numerical simulation of light penetration in an optimized flow field composed of microalgae cells, carbon dioxide bubbles and culture medium. <i>Bioresource Technology</i> , 2019 , 292, 121979	11	7
167	In situ Spectroscopic Insight into the Origin of the Enhanced Performance of Bimetallic Nanocatalysts towards the Oxygen Reduction Reaction (ORR). <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 16062-16066	16.4	77
166	Enhanced biomass productivity of <i>Arthrospira platensis</i> using zeolitic imidazolate framework-8 as carbon dioxide adsorbents. <i>Bioresource Technology</i> , 2019 , 294, 122118	11	13
165	How cations determine the interfacial potential profile: Relevance for the CO ₂ reduction reaction. <i>Electrochimica Acta</i> , 2019 , 327, 135055	6.7	17

164	Computational Ag/AgCl Reference Electrode from Density Functional Theory-Based Molecular Dynamics. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 10224-10232	3.4	7
163	Toward a quantitative theoretical method for infrared and Raman spectroscopic studies on single-crystal electrode/liquid interfaces. <i>Chemical Science</i> , 2019 , 11, 1425-1430	9.4	8
162	Solid-to-liquid phase transitions of sub-nanometer clusters enhance chemical transformation. <i>Nature Communications</i> , 2019 , 10, 5400	17.4	18
161	Developing microporous fibrous-diaphragm aerator to decrease bubble generation diameter for improving microalgal growth with CO fixation in a raceway pond. <i>Bioresource Technology</i> , 2019 , 276, 28-34	11	13
160	Co-production of biohydrogen and biomethane from food waste and paper waste via recirculated two-phase anaerobic digestion process: Bioenergy yields and metabolic distribution. <i>Bioresource Technology</i> , 2019 , 276, 325-334	11	40
159	Tuning the Electronic Structure of NiO via Li Doping for the Fast Oxygen Evolution Reaction. <i>Chemistry of Materials</i> , 2019 , 31, 419-428	9.6	56
158	Excavated Rh nanobranches boost ethanol electro-oxidation. <i>Materials Today Energy</i> , 2019 , 11, 120-127	7	13
157	Promoting Photochemical Efficiency of Chlorella PY-ZU1 with Enhanced Velocity Field and Turbulent Kinetics in a Novel Tangential Spiral-Flow Column Photobioreactor. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 384-393	8.3	15
156	Slurryability and combustion characteristics of coal-coking wastewater-slurry. <i>Canadian Journal of Chemical Engineering</i> , 2019 , 97, 1803-1808	2.3	2
155	Strengthening mass transfer of carbon dioxide microbubbles dissolver in a horizontal tubular photo-bioreactor for improving microalgae growth. <i>Bioresource Technology</i> , 2019 , 277, 11-17	11	16
154	Oxidative Dehydrogenation of Propane to Propylene in the Presence of HCl Catalyzed by CeO2 and NiO-Modified CeO2 Nanocrystals. <i>ACS Catalysis</i> , 2018 , 8, 4902-4916	13.1	68
153	Theoretical insight into the vibrational spectra of metal-water interfaces from density functional theory based molecular dynamics. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 11554-11558	3.6	23
152	Experimental studies on coal water slurries prepared from coal gasification wastewater. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2018 , 13, e2162	1.3	8
151	Promoting helix pitch and trichome length to improve biomass harvesting efficiency and carbon dioxide fixation rate by <i>Spirulina</i> sp. in 660 m raceway ponds under purified carbon dioxide from a coal chemical flue gas. <i>Bioresource Technology</i> , 2018 , 261, 76-85	11	24
150	Generating cycle flow between dark and light zones with double paddlewheels to improve microalgal growth in a flat plate photo-bioreactor. <i>Bioresource Technology</i> , 2018 , 261, 151-157	11	11
149	Serial lantern-shaped draft tube enhanced flashing light effect for improving CO fixation with microalgae in a gas-lift circumflux column photobioreactor. <i>Bioresource Technology</i> , 2018 , 255, 156-162	11	20
148	Improving the CO2 fixation rate by increasing flow rate of the flue gas from microalgae in a raceway pond. <i>Korean Journal of Chemical Engineering</i> , 2018 , 35, 498-502	2.8	11
147	Visible light-driven C-H activation and C-C coupling of methanol into ethylene glycol. <i>Nature Communications</i> , 2018 , 9, 1181	17.4	105

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145	Enhancing slurriabilities of five lignites from Inner Mongolia of China by microwave irradiation. <i>Drying Technology</i> , 2018 , 36, 100-108	2.6	5
144	Alternatively permutated conic baffles generate vortex flow field to improve microalgal productivity in a raceway pond. <i>Bioresource Technology</i> , 2018 , 249, 212-218	11	27
143	Removing ethinylestradiol from wastewater by microalgae mutant <i>Chlorella</i> PY-ZU1 with CO fixation. <i>Bioresource Technology</i> , 2018 , 249, 284-289	11	24
142	Optimization of coating solution viscosity of hollow fiber-supported polydimethylsiloxane membrane for CO ₂ /H ₂ separation. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 45765	2.9	11
141	In-situ grafting to improve polarity of polyacrylonitrile hollow fiber-supported polydimethylsiloxane membranes for CO separation. <i>Journal of Colloid and Interface Science</i> , 2018 , 510, 12-19	9.3	16
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133	Solar energy-driven lignin-first approach to full utilization of lignocellulosic biomass under mild conditions. <i>Nature Catalysis</i> , 2018 , 1, 772-780	36.5	232
132	Reduced generation time and size of carbon dioxide bubbles in a volute aerator for improving <i>Spirulina</i> sp. growth. <i>Bioresource Technology</i> , 2018 , 270, 352-358	11	16
131	Graphene Nanoplatelet and Reduced Graphene Oxide Functionalized by Ionic Liquid for CO ₂ Capture. <i>Energy & Fuels</i> , 2018 , 32, 6918-6925	4.1	8
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125	Mutation of <i>Spirulina</i> sp. by nuclear irradiation to improve growth rate under 15% carbon dioxide in flue gas. <i>Bioresource Technology</i> , 2017 , 238, 650-656	11	37
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123	Investigating hydrothermal pretreatment of food waste for two-stage fermentative hydrogen and methane co-production. <i>Bioresource Technology</i> , 2017 , 241, 491-499	11	108
122	Transcriptome sequencing and metabolic pathways of astaxanthin accumulated in <i>Haematococcus pluvialis</i> mutant under 15% CO. <i>Bioresource Technology</i> , 2017 , 228, 99-105	11	34
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