RESEARCH & PUBLICATIONS

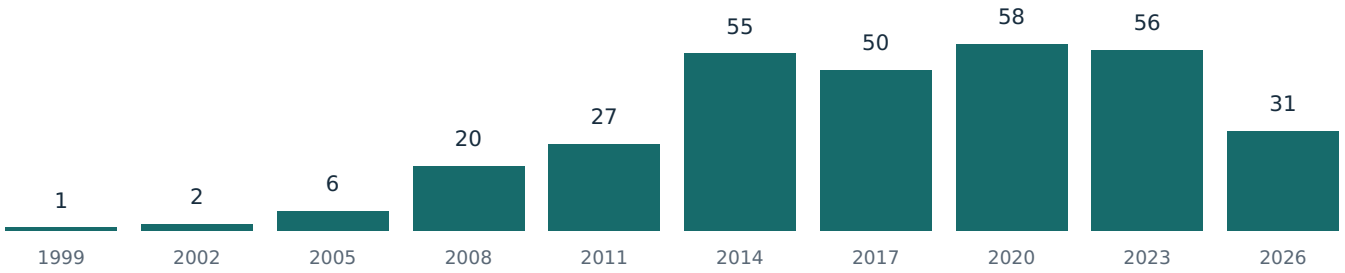
Shurong Wang

A publication record at a glance

307	20,158	73
ARTICLES	CITATIONS	h-INDEX

PUBLICATION ACTIVITY

Articles grouped into 3-year periods



1 articles have no publication year in the database.

MOST CITED IN THIS LIST

Lignocellulosic Biomass Pyrolysis Mechanism: A State-of-the-Art Review — 2,492
2017 Progress in Energy and Combustion Science

Mechanism Study of Wood Lignin Pyrolysis by Using TG–FTIR Analysis — 905
2008 Journal of Analytical and Applied Pyrolysis

A Review of Recent Advances in Biomass Pyrolysis — 575
2020 Energy & Fuels

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Ordered by publication year, newest first

2027

01 Hydrogen-Rich Syngas Production From Biomass via Low-Temperature Pyrolysis Coupled Gasification of Biochar-Oil Briquette Fuels

Biomass and Bioenergy · 217, 110046

https://exaly.com/article/217997924

0 citations

2026

02 Mechanistic Insights Into the Role of N/O-Doped Biochar in Enhanced Phenolics Production During Biomass Pyrolysis

Green Energy and Environment · 11, 724-735

https://exaly.com/article/203376760

8 citations

03 Insight Into the Influence Mechanism of Inherent Ash in Pyrolysis Recycling of Sewage Sludge: Dual Roles of Catalysis and Physical Barrier

Journal of Analytical and Applied Pyrolysis · 193, 107390

https://exaly.com/article/205116113

9 citations

04 Transformative Recycling of Binary Plastics Into Nitrogen- and Oxygen-Rich Nanoporous Carbon for Superior Carbon Dioxide Capture Performance

Separation and Purification Technology · 380, 135491

https://exaly.com/article/205441310

1 citations

05 Revealing the Mechanisms of Biomass Fast Pyrolysis Catalyzed by CaO-Modified Red Mud

Journal of Analytical and Applied Pyrolysis · 193, 107444

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4 citations

06 Harnessing the Optimization Strategy via Interpretable Machine Learning Framework for High-Efficiency Pyrolysis-Catalysis Engineering of Plastic Wastes

Energy Conversion and Management · 348, 120770

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3 citations

07 Niobium Phosphate-Modified HY Zeolite With Enhanced Acidity and Hydroxyl Density for Efficient Alkylation of Bio-Oil Phenolics

Journal of Agricultural and Food Chemistry · 74, 1009-1021

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08 Enhanced In-Situ Catalytic Hydropyrolysis of Enzymatic Hydrolysis Lignin: Co-Processing Impregnated Nickel Formate as a Recyclable Ni Precursor

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Applied Catalysis B: Environmental · 387, 126482

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10 **Al-Content-Tuned Ni-Based Amorphous Silica-Alumina Catalysts for Efficient Hydrodeoxygenation of Lignin Phenols Under Mild Conditions** — 2 citations

Fuel · 417, 138624

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11 **In Situ-Formed C-N Anchors Embedded Into Sn-Based Negative Electrodes for Long-Life Na-Ion Batteries** — 9 citations

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12 **Synergistic Condensation-Hydrogenation Over Pd/MgAlO: A Coking-Resistant Strategy for Jet Fuel Precursors From Biomass Derivatives** — 2 citations

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13 **The Study on Citric Acid-Modified HUSY Catalyzed Alkylation of Phenol With Cyclohexanol** — 0 citations

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14 **Regulation Mechanisms of Torrefaction Atmospheres on Structural Evolution, Pyrolysis Behavior, and Product Distribution of Corn Straw** — 3 citations

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15 **Acid Scavenging via Ion-Exchange Resin Coating Enables Durable High-Temperature Sodium-Ion Batteries** — 1 citations

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16 **Cascade Alkylation and Hydrodeoxygenation of 2-Methylfuran and Ketones/Aldehydes to Biojet Fuel Over Polyoxometalate Catalysts Under Mild Conditions** — 0 citations

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17 **A Novel Flame-Retardant Solid-Solid Phase Change Material for High-Rate Cycling and Thermal Runaway Protection in Battery Thermal Safety System** — 2 citations

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20 Aerogel-Stabilized Ultrafine Cu2O With Lattice Strain for Enhanced Photocatalytic Conversion of CO2 to Methanol.

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22 Microscopic Catalytic Mechanisms of Alkali and Alkaline Earth Metals in the Production of Phenolic Compounds During Lignin Pyrolysis

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23 Co-Pyrolysis Behavior and Analysis of Synergistic Effects of Cellulose-Plastic Blends

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24 Mechanical-Electrochemical Coupling Enables Pressure-Informed Diagnosis and Interfacial Self-Leveling in Sodium-Ion Batteries.

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27 Universal Offline Optimization of a Hybrid Battery Thermal Management System Under Driving Variability — 0 citations

Sustainable Energy and Fuels · 10, 5007-5020

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28 Deciphering the Microscopic Mechanism of Cross-Coupling Interactions Between Cellulose and Lignin During Biomass Pyrolysis — 0 citations

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29 Mechanism of Synergistic Multi-Component Molten Medium-Assisted Pyrolysis of Biomass for Co-Production of Hydrogen and Porous Carbon — 0 citations

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30 Design Principles for Functional Carbon Materials Derived From Biomass Conversion — 0 citations

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31 Mixed-Lignin Precursor Engineering for Hierarchically Porous Pseudo-Graphitic Carbon Toward High-Performance Supercapacitors — 0 citations

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32 Crosslinking Modification of Starch Improves the Structural Stability of Hard Carbon Anodes for High-Capacity Sodium Storage — 38 citations

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33 Regulating the Microstructure of Cross-Linked Starch-Derived Hard Carbon for Highly Reversible Sodium-Ion Storage — 23 citations

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34 Hydrogen and Terephthalic Acid Production From Polyester-Polyolefin Mixed Waste Plastics by Low-Temperature Hydrothermal Conversion Process — 1 citations

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37 **Automated Machine Learning-Assisted Analysis of Biomass Catalytic Pyrolysis for Selective Production of Benzene, Toluene, and Xylene**
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40 **The Role of Hydrothermal Curing in Activating Reaction of Incinerated Sewage Sludge Ash for Preparation of Eco-Blocks**
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41 **Analytical Pyrolysis of Fir Sawdust, Olive Stone and Sewage Sludge in Molten Carbonate Salts**
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42 **Catalytic Steam Reforming of Aqueous Products Derived From Hydrothermal Conversion of Biomass for Hydrogen Production**
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50 Low-Temperature Upcycling of Polypropylene Waste Into H2 Fuel via a Novel Tandem Hydrothermal Process
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51 Low Temperature and Facile Synthesis of Nitrogen-Doped Hierarchical Porous Carbon Derived From Waste Polyethylene Terephthalate for Efficient CO2 Capture
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52 All-in-One Chitosan-Based Aerogel With a Semi-Clad Structure for Solar-Driven Interfacial Evaporation — 49 citations

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53 Recent Advances in Co-Processing Biomass Feedstock With Petroleum Feedstock: A Review — 15 citations

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54 High-Purity H2 Production From Mixed PVC/PET Plastic Wastes Through Tandem Hydrothermal Depolymerization and Aqueous Phase Reforming — 8 citations

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56 Research on the Pyrolysis Mechanism of Tobacco Based on Low Temperature Torrefaction — 12 citations

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58 Solar-Driven Photoelectrochemical Conversion of Biomass: Recent Progress, Mechanistic Insights and Potential Scalability — 86 citations

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59 Pseudocapacitance-Enhanced Mesoporous Carbon Produced by Stepwise Pyrolysis of Discarded Oil-Absorbing Aerogels — 5 citations

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63 Efficient C–O Bond Hydrogenolysis Over Polyoxometalate Catalysts in Mild Hydrodeoxygenation of Lignin-Derived Phenols to Cycloalkanes

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64 Enhanced Carbon Sequestration of Sustainable Biochar via Metal Salt Regulation: Insight Into Reaction Mechanism and Carbon Footprint

10 citations

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65 Enhanced Furfural-Affecting Ketonization of Acetic Acid by Cerium Composite Metal Oxides

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66 Low-Temperature Upcycling of PET Waste Into High-Purity H2 Fuel in a One-Pot Hydrothermal System With in Situ CO2 Capture

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68 Influence of Biomass Pretreatment on Subsequent Pyrolysis and Hydrodeoxygenation in Bio-Based Transport Fuels and Chemicals Production: A Critical Review

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