

Special Issue

Advances in Carbon Capture Technologies in Thermochemical Conversion of Biomass

Message from the Guest Editors

This Special Issue focuses on BECCS in biomass thermochemical conversion processes and invites submissions focused on, but not limited to, reviews and original research papers; the topics of interest for this Special Issue are as follows:

- Preprocess carbon capture technologies (advanced gasification, steam methane reforming, auto-thermal reforming, partial oxidation, pyrolysis, etc.);
- High-temperature solid looping technologies, including chemical looping, calcium looping, etc.;
- Oxy-fuel technologies;
- Postprocess carbon capture, e.g., absorption/adsorption-based separation, membrane CO₂ separation, and cryogenic separation technologies;
- Artificial intelligence (AI) in BECCUS;
- Carbon capture using nanotechnology;
- Biochar for carbon capture and removal as adsorbent or catalyst;
- Plasma technique-based biomass processing.

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Deadline for manuscript submissions

closed (30 November 2025)



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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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