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for Wastewater Treatment

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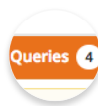
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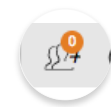
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# Biochar Polymer Composites for Wastewater Treatment

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## Key Points

- Biochar polymer composites for wastewater treatment are studied.
- Different biochar activation methods are presented.
- Various biochar modification techniques are presented.
- Comparison of biochar properties derived from various feedstock materials is given.
- Research limitations and future works are discussed.

## Abstract

Biochar polymer composites represent a burgeoning innovation in wastewater treatment, offering a blend of efficiency and sustainability. These composites combine biochar, a highly porous, carbon-rich material derived from organic waste, with polymers such as polyvinyl alcohol or polyacrylamide. This combination yields a material with enhanced properties compared to biochar alone, including increased adsorption capacity, improved mechanical strength, and greater durability.