



Biochar: Preparation, Modification and Environmental Application

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Message from the Guest Editor

Biochar has been widely used in environmental remediation due to its relatively large specific surface area, abundant surface functional groups, and low preparation cost. However, pristine biochar has a relatively limited adsorption capacity for pollutants compared with activated carbon. Therefore, it is necessary to modify the biochar to improve its adsorption capacity. The properties of biochar are different depending on the feedstocks, carbonization conditions, and modification methods, which may affect its adsorption performance and application. Currently, the research on biochar on the adsorption pollutants mainly focuses on its physicochemical characteristics, influencing factors, and adsorption mechanisms. To optimize the preparation conditions of functional biochar, to clarify the adsorption behavior and mechanism of different modified biochars for different pollutants, and to systematically evaluate the problems and environmental risks in its practical application, scientists all over the world must carry out systematic research together. In particular, research on the adsorption and removal mechanism of some emerging contaminants is also highly needed.





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