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A B S T R A C T

In this study, sludge-derived biochar (SDBC) was prepared and applied in peroxydisulfate (PDS) activation for sulfamethoxazole (SMX) degradation. Compared to the slight adsorption (16.5%) by SDBC alone and low direct oxidation (10.1%) by PDS alone, the SMX degradation rate was drastically increased to 94.6% in the combined SDBC/PDS system, suggesting that SDBC can successfully and efficiently activate PDS. The observed rate constant of the combined SDBC/PDS system was 48.3 times those of both PDS alone and SDBC alone processes. Material characterization

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