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**Removal performance and microbial communities in a sequencing batch reactor
treating hypersaline phenol-laden wastewater**

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ABSTRACT

Hypersaline phenol-rich wastewater is hard to be treated by traditional biological systems. In this work, a sequencing batch reactor was used to remove phenol from hypersaline wastewater. The removal performance was evaluated in response to the variations of operating parameters and the microbial diversity was investigated by 454 pyrosequencing. The results showed that the bioreactor had high removal efficiency of phenol and was able to keep stable with the increase of initial phenol concentration. DO, pH, and salinity also affected phenol removal rate of the process. The most abundant bacterial group was phylum *Proteobacteria* in the two working conditions, and class

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