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## RESEARCH ON CLEANER PRODUCTION POTENTIAL IN LIAO RIVER BASIN BASED ON SYSTEM DYNAMICS

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### Abstract

Compared with pollution transfer, cleaner production (CP) was more effective to reduce pollution in many less developed countries. However, it was more difficult to assess the potential of cleaner production (PCP) in emission-reduction. The model of PCP in Liao River Basin was established based on system dynamics, which could quantitatively analyse the potential of basin cleaner production and the contribution to emission-reduction. The result showed that selected 2010 as the base year, 2015 as the target year, with the promoting cleaner production and improving waste treatment, the emission of COD and NH<sub>3</sub>-N would be reduced 16% and 22% respectively in 2015. The contribution rate on COD emission-reduction was 65% of cleaner production and 35% of waste treatment respectively, while on NH<sub>3</sub>-H emission-reduction was 72% and 28% respectively.

*Key words:* basin, cleaner production potential, system dynamics

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