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Evaluation of Cleaner Production Technology Integration for the Chinese Herbal Medicine Industry Using Carbon Flow Analysis

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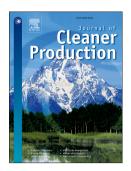
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1	Evaluation of Cleaner Production Technology Integration for the
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12	Keywords: Low-carbon economy; Bioenergy; Cleaner production; Carbon flow
13	analysis; Technology assessment; Industrial biomass waste
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15	ABSTRACT
16	The manufacturing sector was an early promoter of CO ₂ mitigation and

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The manufacturing sector was an early promoter of CO₂ mitigation and low-carbon development strategies in many countries. The basic unit for these development strategies is enterprises. In order to quantify their performance on resource saving and emission reduction, this study proposed a carbon flow analysis (CFA) approach based on substance flow analysis (SFA). Four special evaluation indicators including the percentage of carbon stored in the product (R_{C-P}) , the percentage of carbon as $CO_2(R_{C-CO2})$, the percentage of carbon in solid waste (R_{C-SW}) , and the percentage of carbon in COD (R_{C-COD}) were developed. A case study was conducted in an herbal medicine plant, which consumes huge amounts of fossil fuel

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