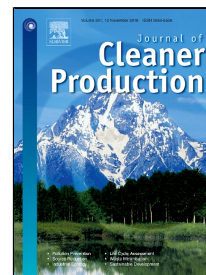


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# Structural Transformation of Manufacturing, Natural Resource Dependence, and Carbon Emissions Reduction: Evidence of a Threshold Effect from China

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## Highlights:

1. The STIRPAT model and panel threshold model are employed in this paper.
2. Manufacturing structure rationalization and upgrading will help to curb carbon dioxide emissions.
3. The emissions reduction effect of structural transformation is affected by resource dependence.
4. A higher degree of industrialization can weaken the restricting effect of resource dependence.

## ABSTRACT

Natural resource endowment has a significant influence on manufacturing structure which in turn influences CO<sub>2</sub> emissions. This paper investigates the effect of the rationalization and upgrading of manufacturing structure on carbon dioxide emissions in China, based on the perspective of natural resource dependence. The results of the STIRPAT model on provincial panel data of the manufacturing sector from 2003 to 2014 show that manufacturing structure rationalization and upgrading will help curb CO<sub>2</sub> emissions, while such effects are restricted by a region's reliance on natural resources. The panel threshold model estimations further indicate that the

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