



# 7<sup>th</sup> INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

## Academic

“CLEANER PRODUCTION FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS”

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## Evaluation of the Potential of Absorption Refrigeration in Shopping Centers in Barranquilla, Colombia

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### Abstract

This study analyzes the energy potential of an absorption cooling system with solar collectors in different shopping centers in Barranquilla. Field measurements of the refrigeration systems were made and the benefits of this technology compared to the compression refrigeration systems in use were analyzed. The results show that introducing refrigeration by absorption, can generate electricity savings of up to 74.25%, with a decrease of up to 47.12 Tonnes / year of CO<sub>2</sub> equivalent for the percentage without the use of electricity.

*Keywords: Refrigeración, absorción, electricidad, colector solar y centro comercial.*

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