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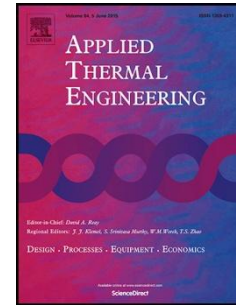
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Mathematical Investigation of purge Sector Angle for Clockwise and Anticlockwise Rotation of Desiccant Wheel

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HIGHLIGHTS

- *Development of a mathematical model to investigate the purge angle for clockwise and anticlockwise rotation of desiccant wheel.*
- *Purge sector is installed in regeneration section.*
- *Performance of anticlockwise rotation is better than clockwise rotation of the wheel for a given range of operating conditions.*
- *Effect of variation in purge angle for clockwise direction is slightly more than that of anticlockwise direction.*

ABSTRACT

One dimensional mathematical model is developed to investigate the purge sector angle of the desiccant wheel for different operating conditions. The model shows good agreement with the experimental results obtained from the literature. In this paper the purge section is installed in the regeneration section and conduct a comparative performance analysis in both the directions of rotation (clockwise & anticlockwise) of the desiccant wheel with different purge sector angles. It

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