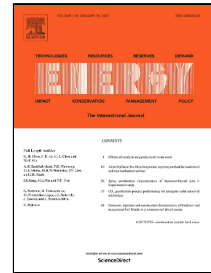


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Thermal Survey of Core losses in Permanent Magnet Micro-motor

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Highlights

- ▶ A new approach for improving performance of a permanent magnet (PM) micro-motor is presented.
- ▶ A FE model was presented for a basic PM micro-motor and validated by experimental results.
- ▶ Adding back iron to the basic micro-motor, showing an increase in mechanical torque of up to 60%.
- ▶ For decreasing eddy current loss, two lamination methods were presented (radial and circular).
- ▶ Results indicated, both laminations did not affect the back-EM and the mechanical torque.

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