Energy Harvesting in Rotating Body

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Introduction

- This is an energy harvester in rotational motion which can convert the vibration and rotation energy into electricity based on the piezoelectric effect. Thus, the promising application is to power the wireless sensors installed in the rotational environment, such as the tire pressure monitoring system (TPMS).
- To enhance energy harvesting performance, a multi-stable nonlinear energy harvester is proposed in rotational motion.

Broadband energy harvesting

System design and modeling



Low frequency enhanced response

Notes:

[1] Mei X, Zhou S, Yang Z, Kaizuka T and Nakano K (2020) A tri-stable energy harvester in rotational motion: Modeling, theoretical analyses and



