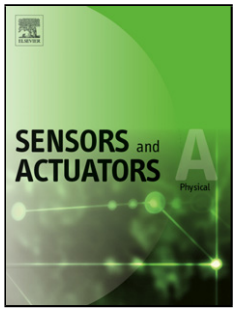

Title: Low Frequency Piezoelectric Energy Harvesting at Multi Vibration Mode Shapes

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Highlights

- A multi-degree of freedom energy harvester was designed, microfabricated and tested
- Natural frequencies of 71.8, 84.5, and 188.4 Hz were measured at first 3 mode shapes
- The harvester shows a wider frequency bandwidth than a linear resonator
- Using FEM, mechanical nonlinear effect and voltage output of the device were modeled
- A max. O.C. voltage of ~1V and power output of ~136 nW were measured at 0.2g