

# Submission #4499

Spintronic Diode as a Signal Detector and RF Energy Harvester

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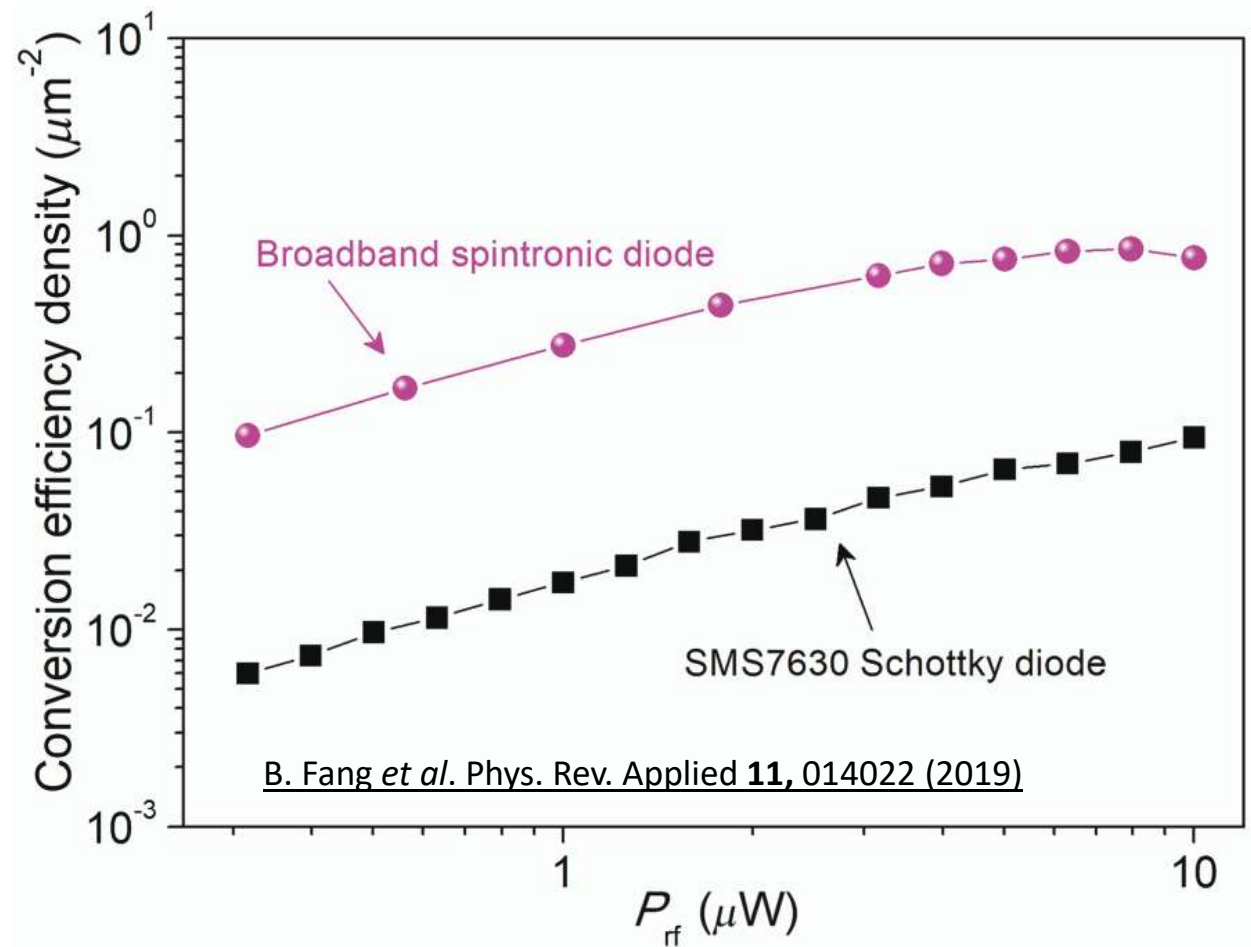


Figure 1. Experimental demonstration of the advantage of a broadband spintronic diode over a semiconductor Schottky diode in the rf energy harvesting.

The conversion efficiency density (per  $\mu\text{m}^2$  of the device area) of the Schottky and spintronic diodes as functions of the power  $P_{rf}$  of the rf signal were calculated from the rectified dc voltages at the rf signal frequency of 500 MHz.