MEMS Electrostatic Energy Harvester Dynamics ($\alpha = 1.5$) Shuttle and Electrode Displacement Output Voltage $\begin{array}{c} x_1 \text{ (Shuttle)} \\ x_2 \text{ (Electrode)} \end{array}$ 7.5 0.02 5.0 Voltage V_{out} (mV) 0.01 2.5 0.0 0.00 -2.5-0.01-5.0-7.5-0.020.25 0.30 0.35 0.30 0.35 0.40 0.20 0.40 0.20 0.25 Collision Force Damping Force 0.050 0.025

Displacement (μm)

