

Abstract Submitted
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Mechanically-Excited Sessile Drops CHUN-TI CHANG, JOSHUA BOSTWICK, SUSAN DANIEL, PAUL STEEN, Cornell University — The volume and contact-line mobility of a sessile drop determine the frequency response of the drop to mechanical excitation. A useful signature of the drop is its response to a sweep of frequency. At particular frequencies the drop exhibits standing wave patterns of different mode numbers and/or azimuthal, spinning motion. We report observations of the spectrum of standing wave patterns and compare to predictions of a linear stability theory. On the side of application, the results suggest how to tune the pinning-unpinning of a sessile drop in order to maximize its translation.

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