

WETTABILITY-INDEPENDENT DROPLET TRANSPORT BY BENDOTAXIS

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When a drop is confined in a thin channel with deformable walls, a combination of bending and capillarity causes a pressure gradient that, in turn, results in the spontaneous movement of the liquid. Surprisingly, the direction of this motion, which we refer to as *bendotaxis*, is always the same, regardless of the wettability of the channel; *bendotaxis* may therefore be a useful means of transporting droplets on small scales, with various technological applications. This talk will present details of macroscopic experiments and a simple mathematical model used to study this motion, focussing in particular on the time scale associated with the motion, and we discuss the implications of these results.

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REFERENCES:

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