

Abstract Submitted  
for the MAR17 Meeting of  
The American Physical Society

**Micropipette Deflection Measurements of Agar-Glass Adhesion**

RICHARD PARG, ERIN SHELTON, JOHN DUTCHER, Univ of Guelph — Micropipette deflection experiments were used to study the adhesive strength at an agar-glass interface. Agar is a hydrogel commonly used in biological research; however, many of the mechanical properties of this hydrogel are not well characterized. By measuring the peak force required to slide an agar puck supported by a Teflon ring across a clean glass slide, we are able to compare the adhesive strength of 1 % w/w and 1.5 % w/w agar. On average, the force required to break the agar-glass interface was approximately a factor of 2 larger for 1.5 % w/w agar than for 1 % w/w agar. We discuss this result within the context of a simple model of agar adhesion. Additional experiments were performed to measure the kinetic friction between agar and glass to obtain insight into its dependence on agar concentration.

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Date submitted: 11 Nov 2016

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