

Abstract Submitted
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Selective withdrawal as a method to measure extensional viscosity

E. TREJO, R. ZENIT, Universidad Nacional Autonoma de Mexico, J.J. FENG, University of British Columbia — The extensional viscosity of a liquid is a property that has shown to be very difficult to measure experimentally. We propose the use of the so-called selective withdrawal device to measure it. A viscous fluid layer is withdrawn from below with a tube. The suction deforms the free surface and generates an extensional flow at the entrance of the pipe. We conducted measurements of the extensional rate using PIV and related its value with the deformation of the free surface to determine the extensional viscosity. Some preliminary results will be presented and discussed for both Newtonian and viscoelastic liquids.

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