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Rheology of complex fluids by particle image velocimetry in microchannels

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We image the flow of complex fluids in microchannels of controlled geometry using tracers. The spatial resolution allows us to access quantitatively the bulk nonlinear rheology and wall slip, as we show on model polymer solutions. In perspective this strategy should prove useful for the study of heterogeneous flows of more complex fluids. © *2006 American Institute of Physics*.
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