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Microfluidic interfacial tensiometry JAI PATHAK, NIST, STEVEN HUDSON, NIST, JOAO CABRAL, Imperial College, London — A microfluidic instrument to measure interfacial tension of multicomponent immiscible liquids is reported. The instrument measures deformation and retraction dynamics of drops under extensional flow, and is accurate within a few percent. Binary and ternary mixtures have been examined. Surfactant transport phenomena and the effects of viscosity ratio and bounded flow have also been explored.

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