

83d Break-up and Coalescence Kinetics in a High Dispersed Phase Fraction Liquid-Liquid System

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Droplet size measurements have been performed in high (5%-30%) dispersed phase fraction immiscible liquid-liquid systems in stirred tanks agitated with a variety of impellers, using an in-situ video probe.

Droplet size (and size distribution) data are presented both at steady state and while the droplet size is changing following a step change (up or down) in the impeller speed.

The relative kinetics of the break-up and coalescence processes are discussed.

This work has been performed under the Fluid Mixing Processes (FMP) consortium.