

Abstract Submitted  
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**Spherical and Non-Spherical Double Emulsions with Multiple Components** LAURA ADAMS, THOMAS KODGER, Harvard University, JACY BIRD, MIT, SHIN-HYUN KIM, LOUISE JAWERTH, VINOTHAN MANOHARAN, DAVID WEITZ, Harvard University — Monodispersed double emulsions, drops inside of drops, with multiple and tunable components are generated using microfluidics. A fluid dynamic model based on fast camera images of the single step emulsification technique is being developed to determine the critical separation between channels in the injection capillary; this model addresses the maximum number of distinct drops that can be controllably loaded inside a double emulsion for a given diameter capillary. New stable, non-spherical emulsions with two and three different components, Janus and Cerberus emulsions, are also reported.

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