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(54) **CONTROLLED VESICLE SELF-ASSEMBLY
IN CONTINUOUS TWO PHASE FLOW
MICROFLUIDIC CHANNELS**

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(57) **ABSTRACT**

Methods for the formation of liposomes that encapsulate reagents in a continuous 2-phase flow microfluidic network with precision control of size, for example, from 100 nm to 300 nm, by manipulation of liquid flow rates are described. By creating a solvent-aqueous interfacial region in a microfluidic format that is homogenous and controllable on the length scale of a liposome, fine control of liposome size and polydispersity can be achieved.