

Stability of an Interfacial Meniscus for Filling Nanochannels

김태일, 이홍희*
서울대학교 화학생물공학부
(honghlee@snu.ac.kr*)

The stability of a liquid filament between two surfaces is utilized to fill nanochannels with no residue on the rest of the top surface. The stability condition is that the average contact angle of the liquid with the surfaces be less than 45° . This condition means that a liquid that wets a surface can be used, which contrasts earlier results where liquids that readily dewet a surface are required for the filling. Experimental results are presented for filling nanochannels selectively with sol-gel solutions.