

Abstract Submitted  
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**Capillary rise in a textured channel** DANIEL BEILHARZ, CHRISTOPHE CLANET, DAVID QUERE, Ecole polytechnique - ESPCI — A wetting liquid can invade a textured material, for example a forest of micropillars. The driving and the viscous forces of this motion are determined by the texture parameters and the influence of shape, height and spacing of posts has been widely studied for the last decade. In this work, we build a channel with textured walls. Brought into contact with a reservoir of wetting liquid, we observe in some cases two advancing fronts. A first one ahead invading the forest of micropillars, and a second one behind filling the remaining gap. We study and model the conditions of existence and the dynamics of these two fronts as a function of the characteristics of both microstructure and gap of this elementary porous medium.

Daniel BEILHARZ  
Ecole polytechnique - ESPCI

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