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Dynamics of complete wetting liquid under evaporation CHI-TUONG PHAM, GUILLAUME BERTELOOT[1], Laboratoire Matière et Systèmes Complexes, UMR 7057 CNRS & Université Paris Diderot, Paris, France, FRANÇOIS LEQUEUX, Laboratoire Physico-chimie des Polymères et Milieux Dispersés, UMR 7615 CNRS, ESPCI, Paris, France, LAURENT LIMAT, Laboratoire Matière et Systèmes Complexes, UMR 7057 CNRS & Université Paris Diderot, Paris, France — The dynamics of a contact line under evaporation and total wetting conditions is studied taking into account the divergent nature of evaporation near the border of the liquid, as evidenced by Deegan et al. [Nature **389**, 827 (1997)]. Complete wetting is assumed to be due to Van der Waals interactions. The existence of a precursor film at the edge of the liquid is shown analytically and numerically. The length of the precursor film is controlled by Hamacker constant and evaporative flux. Past the precursor film, Tanner's law is generalized accounting for evaporative effects.

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