Abstract Submitted for the MAR10 Meeting of The American Physical Society

Contact line dynamics of colloids in vertical deposition subjected to electric fields¹ WENCESLAO GONZÁLEZ-VIÑAS, MOORTHI PICHUMANI², MAXIMILIANO GIULIANI³, University of Navarra — We observe the dynamical behavior of receding contact line of an evaporating colloidal suspension subjected to electric fields. The dynamics is explored by evaluating the velocity of contact line at micro and macroscopic length scales. The measured speeds are further correlated with the structures that evolved at the diverse scales during the deposition process. Pinning and depinning of contact line results in its rapid advancement, which could explain the different morphologies obtained.

Wenceslao González-Viñas University of Navarra

Date submitted: 31 Dec 2009 Electronic form version 1.4

¹Partially supported by Departamento de Educación (Gobierno de Navarra) and by Spanish MEC (FIS2008-01126)

 $^{^2 \}mbox{Supported}$ by the Asociación de Amigos de la Universidad de Navarra $^3 \mbox{Refer}$ 2