

Abstract Submitted
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On the Dynamics of Spin-Coating of Rapidly Dried Colloidal Suspensions¹ MAXIMILIANO GIULIANI², WENCESLAO GONZÁLEZ-VIÑAS, Universidad de Navarra, KRISTIN PODUSKA, ANAND YETHIRAJ, Memorial University of Newfoundland — The dynamics during the spin-coating of rapidly dried colloidal suspensions was studied. High-speed photography of the temporal evolution of long-range orientational order in both the fluid and dried phases shows three distinct symmetry transitions. Radial non-uniformity in the thickness of the spun suspension was measured from interference fringes, and from this the thinning rates as a function of radial position and time were calculated. A transition between two regimes is observed in the drying front speed. This transition is correlated with changes in the long-range orientational order (dried structure) as well as in the thickness profiles (in the fluid and dried structures).

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