Journal Name

COYAL SOCIETY OF CHEMISTRY

ARTICLE TYPE

Cite this: DOI: 10.1039/xxxxxxxxx

Electronic Supplementary Information for *Collective diffusion coefficient of a charged colloidal dispersion: interferometric measurements in a drying drop*

Benjamin Sobac, Sam Dehaeck, Anne Bouchaudy, and Jean-Baptiste Salmon

Received Date Accepted Date

DOI: 10.1039/xxxxxxxxx

www.rsc.org/journalname

Supplementary Movie 1 — Interferometric visualization of the drying of a confined drop of a charged colloidal dispersion (Ludox AS). The drying conditions are: $h = 150 \ \mu m$, $\varphi_0 = 0.24$, $R_0 = 1.04 \ mm$, $\tau_f = 172 \ mm$, and Pe = 5.3.

Supplementary Movie 2 — Temporal evolution of the 2D colloid concentration field within the drying drop. This movie directly results from the image processing of the raw pictures shown in Supplementary Movie 1.

Supplementary Movie 3 — Temporal evolution of the concentration profile within the drying drop presented in the Supplementary Movie 1. The concentration profiles result from an angular averaging of the 2D maps shown in Supplementary Movie 2, as far as the drop remains axis-symmetric.