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Drop evaporation and triple line dynamics BENJAMIN SOBAC, DAVID BRUTIN, Université de Provence, JEROME GAVILLET, CEA LITEN, UNIVERSITÉ DE PROVENCE TEAM, CEA LITEN TEAM — Sessile drop evaporation is a phenomenon commonly came across in nature or in industry with cooling, paintings or DNA mapping. However, the evaporation of a drop deposited on a substrate is not completely understood due to the complexity of the problem. Here we investigate, with several nano-coating of the substrate (PTFE, SiO_x, SiO_c and CF), the influence of the dynamic of the triple line on the evaporation process. The experiment consists in analyzing simultaneously the motion of the triple line, the kinetics of evaporation, the internal thermal motion and the heat and mass transfer. Measurements of temperature, heat-flux and visualizations with visible and infrared cameras are performed. The dynamics of the evaporative heat flux appears clearly different depending of the motion of the triple line

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