

Figure: the effect of morphology at (top, at 30% coverage) on nucleation kinetics (bottom). Top colors match bottom curves. All reaction parameters are the same (incoming flux, sticking coefficients) except the coating-substrate and coating-coating binding energies. The difference in kinetics can be explained by a diffusion-powered change in edge length per surface area. Parameters are flux: $10^{18} \text{ m}^{-2} \text{s}^{-1}$, sticking coefficient on the substrate: 10^{-6} , sticking coefficient on the film: 10^{-4} , site density: 3 nm^{-2} , temperature 500K. Different morphologies and diffusion-related phenomena can be observed by varying the flux and sticking coefficients.