Figure S1. Temporal evolution of the gas phase concentration of organic compounds interacting with semisolid seed aerosol particles under the same conditions as in Fig. 2 but with $\alpha_s = 0.1$ instead of 1. (a) Non-reactive partitioning of compounds with different volatilities ($C^0 = 0.1$ to $1000$ µg m$^{-3}$) and (b) partitioning of semi-volatile compounds ($C^0 = 100$ µg m$^{-3}$) undergoing particle-phase reactions with different first-order loss rate coefficients ($k_b = 10^{-4}$ to 0.1 s$^{-1}$). The red lines are simulated with KM-GAP and the blue lines are simulated by an aerosol dynamic model that employs the Fuchs-Sutugin approximation with $\alpha_{\text{eff}}$ for non-reactive partitioning (a) and for reactive uptake (b). The gray lines represent the MOSAIC approximate (dashed) and transient solutions (solid) (Zaveri et al., 2014).