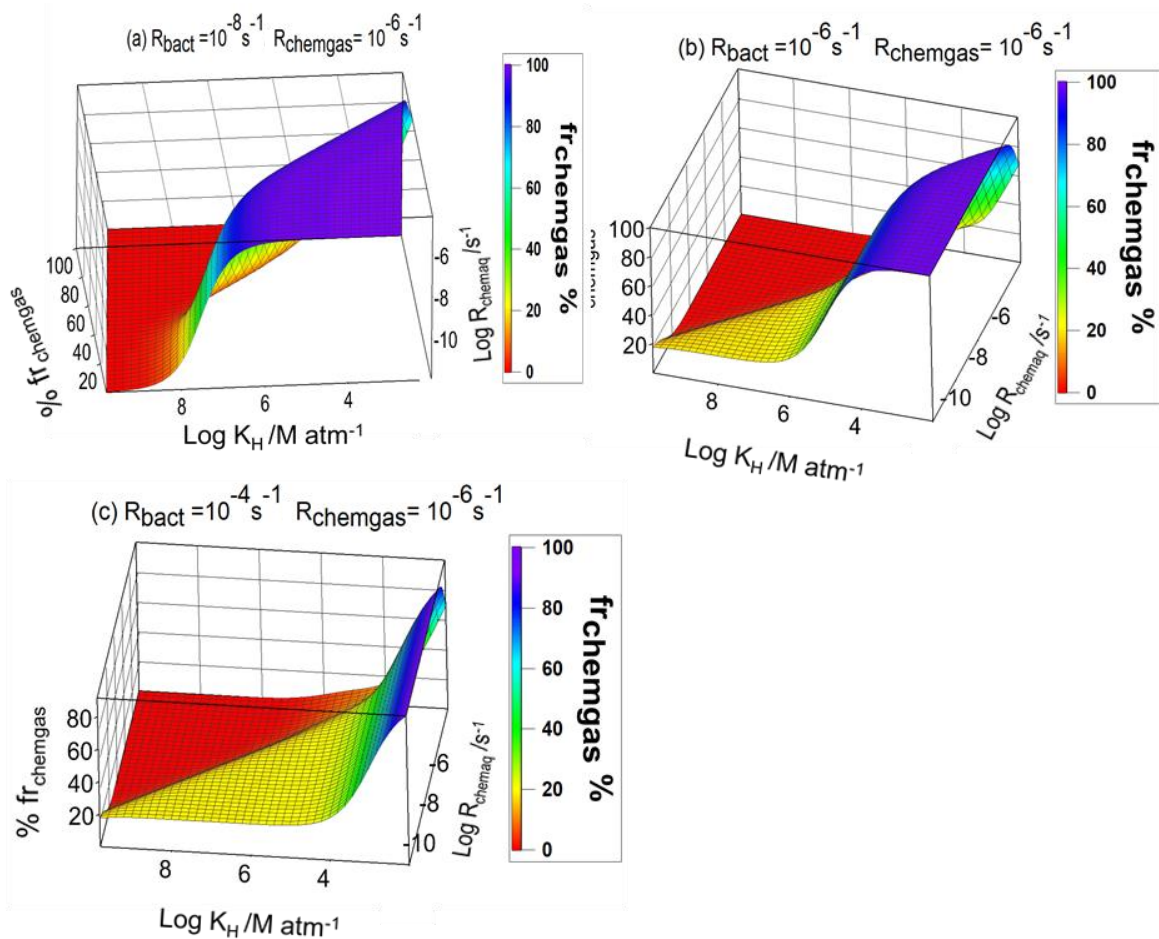
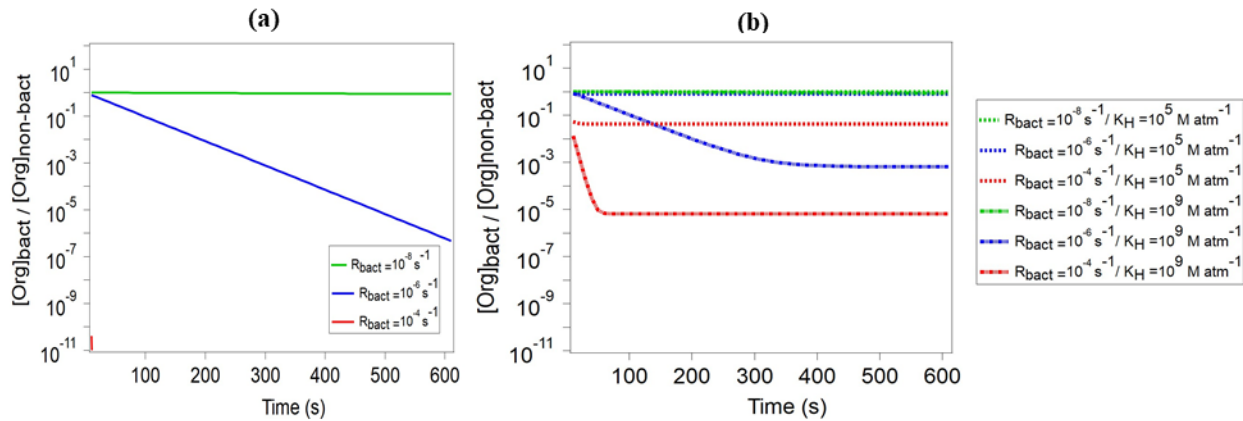


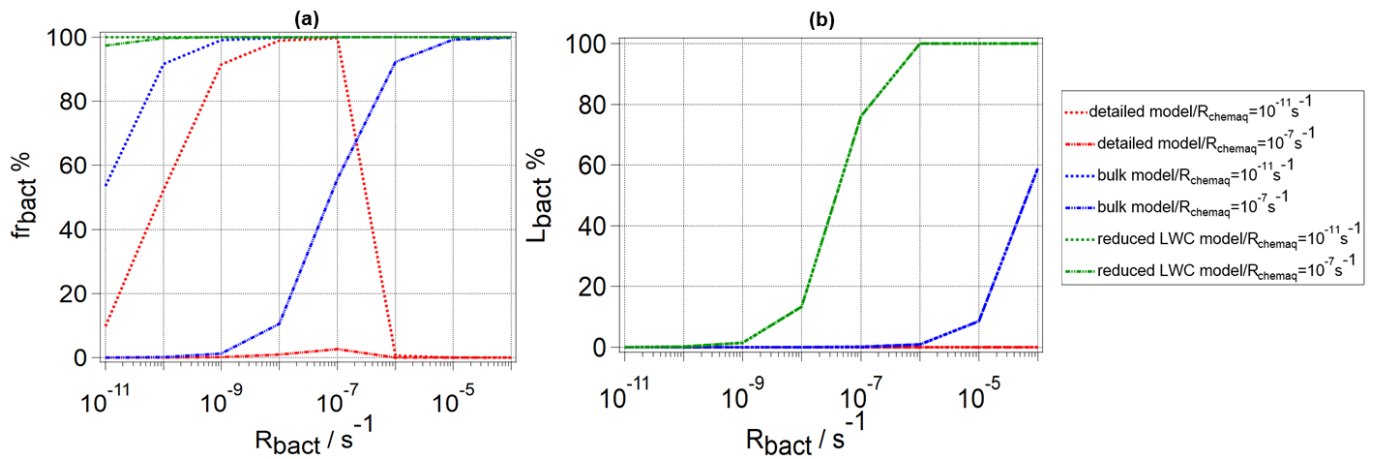
**Figure S1.** Relative contributions of the aqueous phase chemical processes to the total loss rate of organics ( $fr_{\text{chemaq}}$ ) for three  $R_{\text{bact}}$ : (a)  $10^{-8}$ , (b)  $10^{-6}$  and (c)  $10^{-4} \text{ s}^{-1}$  and  $R_{\text{chemgas}}$  ( $10^{-6} \text{ s}^{-1}$ ) and the full ranges of  $R_{\text{chemaq}}$  and  $K_{\text{H}}$  as defined in *Section 3.1*. These are complementary figures to Figure 2a-c.



**Figure S2:** The relative contributions of the gas phase chemical process to the total loss rate of the organics ( $fr_{\text{chemgas}}$ ) for three  $R_{\text{bact}}$ : (a)  $10^{-8}$ , (b)  $10^{-6}$  and (c)  $10^{-4} \text{ s}^{-1}$  and  $R_{\text{chemgas}}$  ( $10^{-6} \text{ s}^{-1}$ ) and the full ranges of  $R_{\text{chemaq}}$  and  $K_{\text{H}}$  as defined in Section 3.1. These are complementary figures to *Figure 2a-c*.



**Figure S3:** Concentration ratio of the organic compound in bacteria-free ( $[Org]_{non-bact}$ ) and bacteria-containing droplets ( $[Org]_{bact}$ ) of the same size ( $20\mu m$  diameter) for (a) NVOC and (b) VOC. Results are shown for  $R_{bact} = 10^{-8} s^{-1}$ ,  $10^{-6} s^{-1}$  and  $10^{-4} s^{-1}$ ,  $R_{chemaq} = 10^{-11} s^{-1}$ ,  $R_{chemgas} = 10^{-6} s^{-1}$ . Panel (b) shows in addition results for VOC at  $K_H = 10^5$  and  $10^9 M atm^{-1}$ .



**Figure S4:** Comparison of (a)  $f_{bact}$ , (b)  $L_{bact}$  for NVOC for three different approach: detailed model (red line), bulk approach (blue line) and low LWC model (green line) for different  $R_{bact}$ , two  $R_{chemaq} = 10^{-11}$  and  $10^{-7} s^{-1}$ .