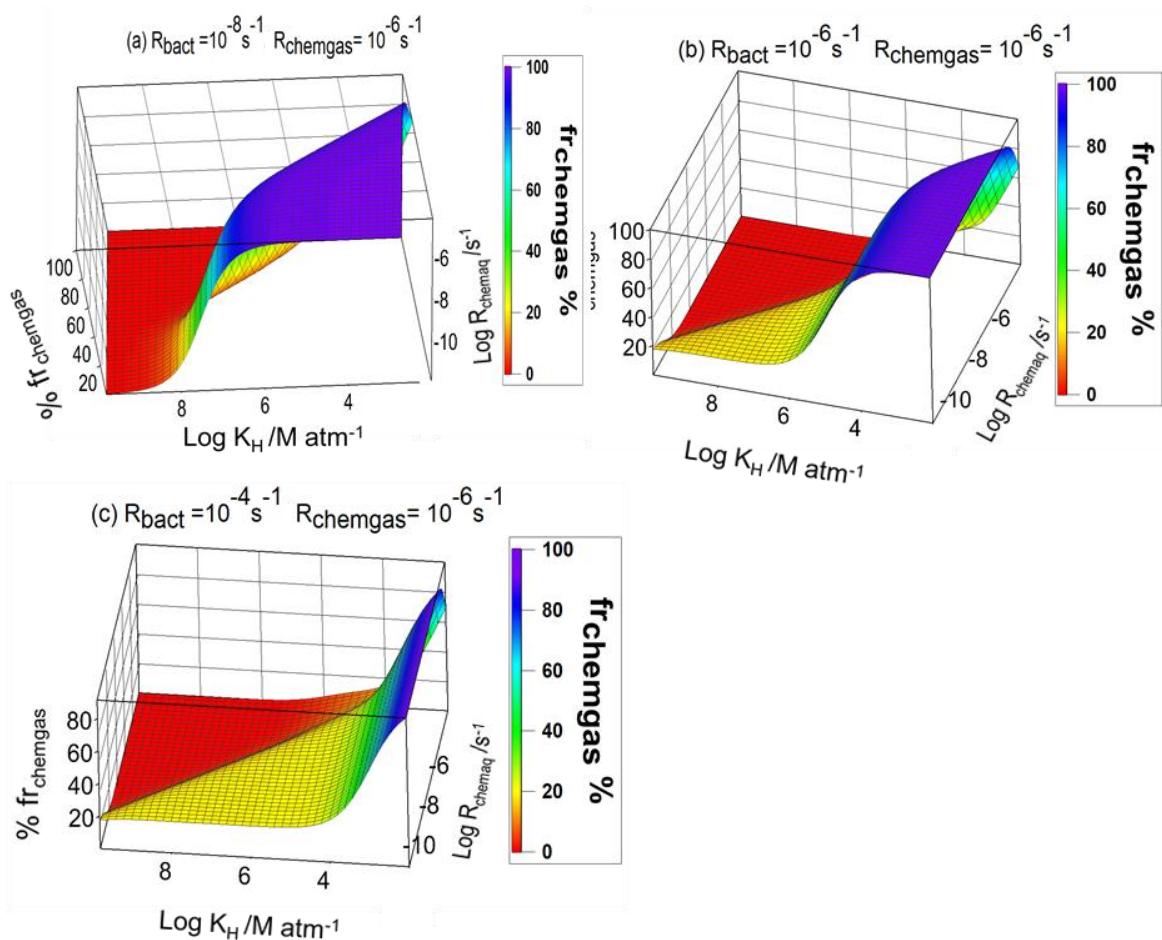
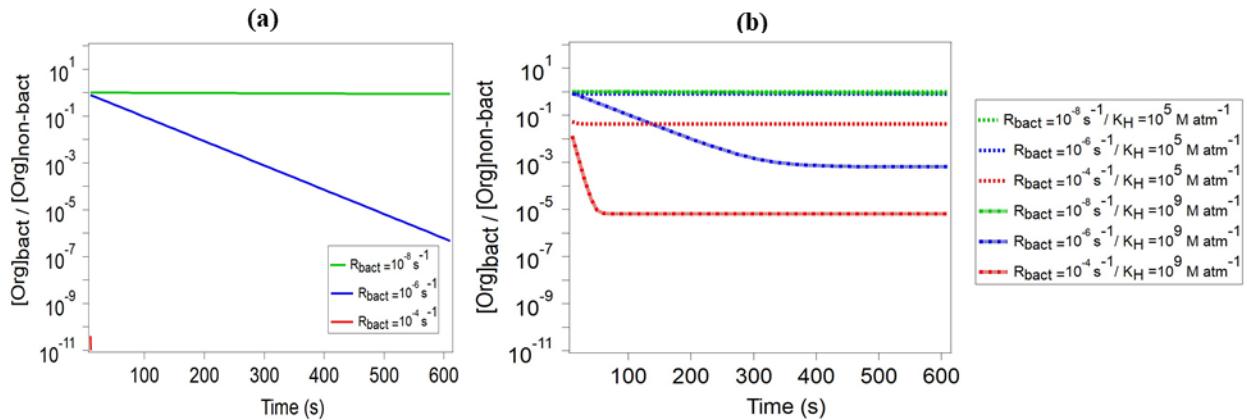


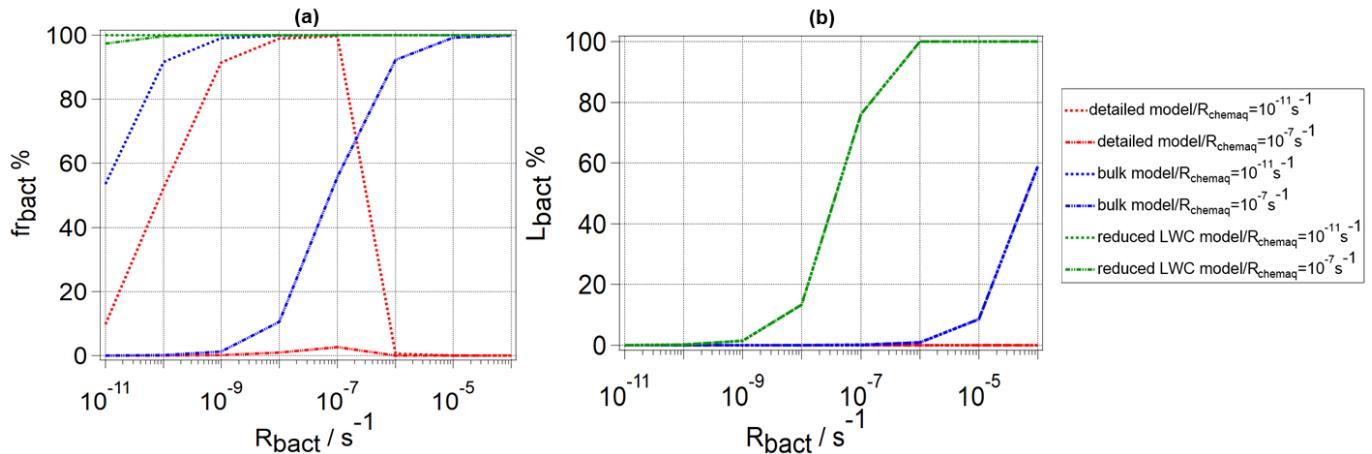
**Figure S1.** Relative contributions of the aqueous phase chemical processes to the total loss rate of organics ( $fr_{chemaq}$ ) for three  $R_{bact}$ : (a)  $10^{-8}$ , (b)  $10^{-6}$  and (c)  $10^{-4} \text{ s}^{-1}$  and  $R_{chemgas}$  ( $10^{-6} \text{ s}^{-1}$ ) and the full ranges of  $R_{chemaq}$  and  $K_H$  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 ( $fr_{chemgas}$ ) for three  $R_{bact}$  : (a)  $10^{-8}$ , (b)  $10^{-6}$  and (c)  $10^{-4} \text{ s}^{-1}$  and  $R_{chemgas}$  ( $10^{-6} \text{ s}^{-1}$ ) and the full ranges of  $R_{chemaq}$  and  $K_H$  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 ( $20\mu\text{m}$  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)  $fr_{bact}$ , (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  $10^{-7} s^{-1}$ .