Electronic Supplementary Material (ESI) for Chemical Science

Supporting Information to

Influence of adsorbed gas at liquid/solid interfaces on heterogeneous cavitation

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Gas content measurements: The device that we used for gas measurements is a getOtwo optical DO sensor. The detection limit is about 0.01 mg/l. The measurement range extands from 0.01 to 20 mg/l. We measured the amount of dissolved oxygen in water in mg/l vs. time. In order to ensure the reproducibility of the results, three repeated measurements have been performed. An average value was used for the calculation.

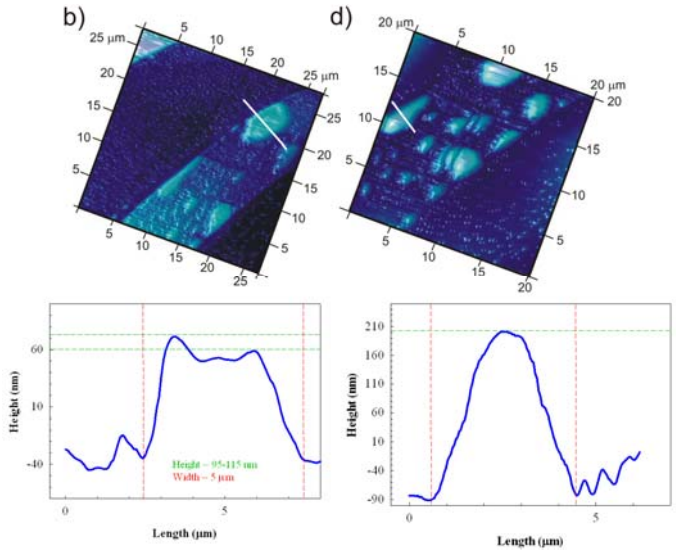

Fig S1: Cross-sections through the gas bubbles formed on the hydrophobic stripe at 30 and 50 min of AFM scanning**.**

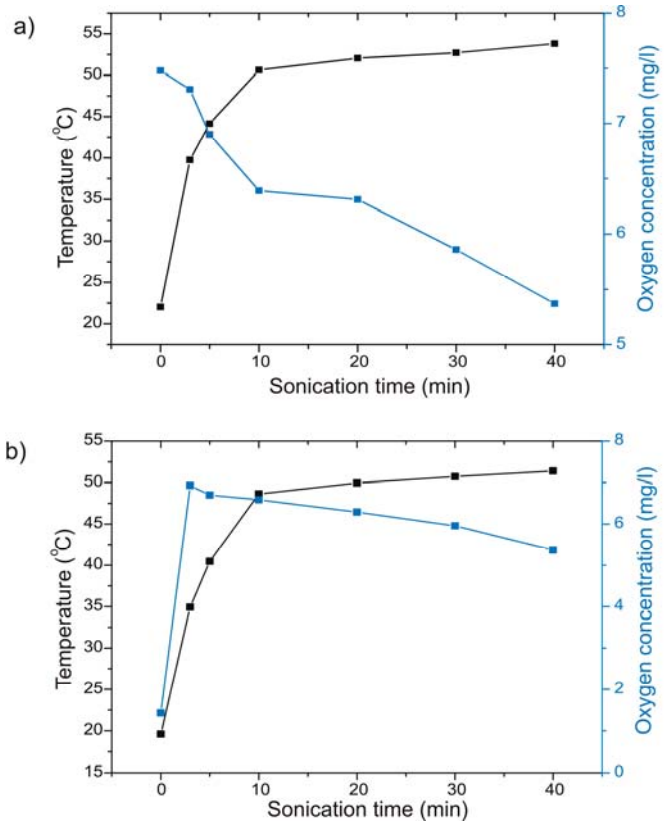

Fig S2 Oxygen concentration and temperature changes of two different liquid media (standard condition (a) and degassed water (b)) as a function of sonication time.

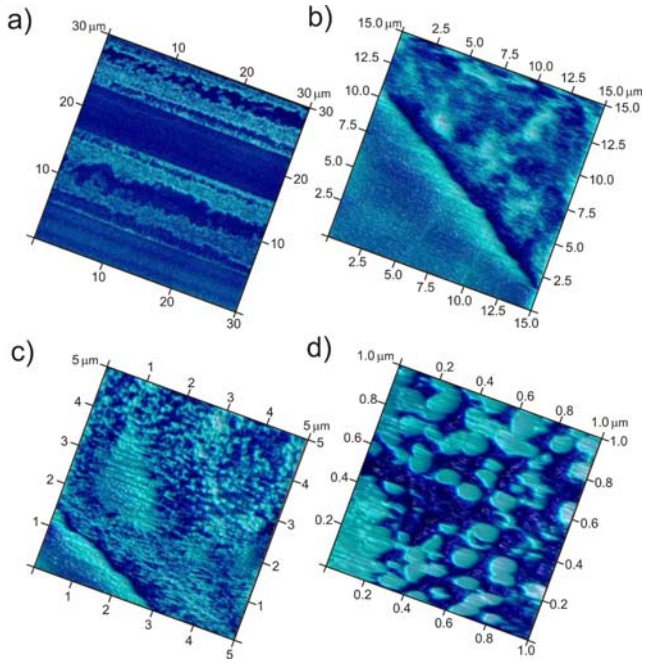

Fig S3 AFM images of the patterns in water saturated with CO_2 after different measurement times: a) 10 min b) 30 min c) 60 min and d) high magnification of the hydrophobic surface at 60 min.