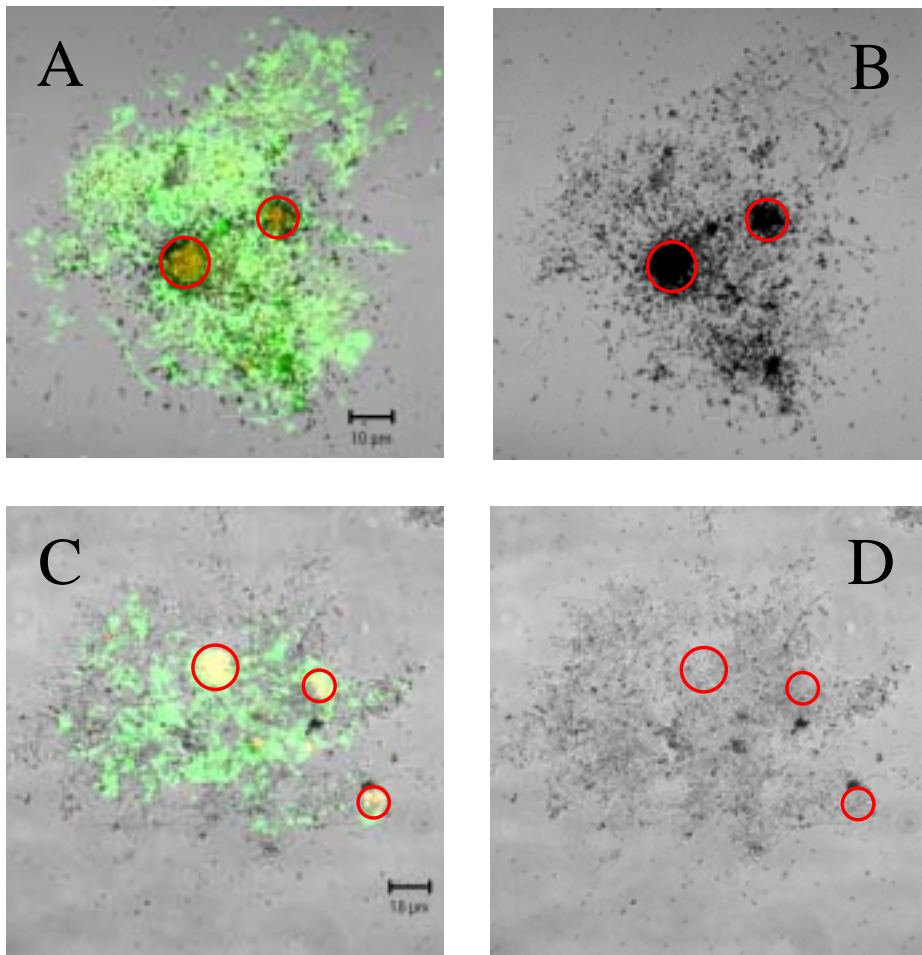


**Figure S1.** Agarose gel electrophoresis of rRNA isolated from activated sludges from the Aalborg West and Oberding plant, respectively, after incubation with  $^{14}\text{C}$  bicarbonate for different periods in the presence or absence of allylthiourea (ATU). Each lane was loaded with approx. 300 ng of total RNA. The figure demonstrates the integrity of the extracted RNA from all samples as indicated by the distinct 16S and 23S rRNA bands.



**Figure S2.** Analysis of non-inhibited (Panels A and B) and allylthiourea inhibited (C and D) Oberding activated sludge by FISH-microautoradiography after incubation with  $^{14}\text{C}$ -bicarbonate for 11 hours. FISH was performed simultaneously with probes Nso1225 (labeled with Cy3; red signals) and the EUB338 probe mix, labeled with FLUOS, green signals). Due to the overlap of colors ammonia-oxidizers appear yellow. Panels on the left side display fluorescence signals and silver grains from the microautoradiography. Fluorescence signals were omitted from panels on the right side to enhance clarity of the microautoradiography pictures. Circles indicate location of ammonia-oxidizer microcolonies.