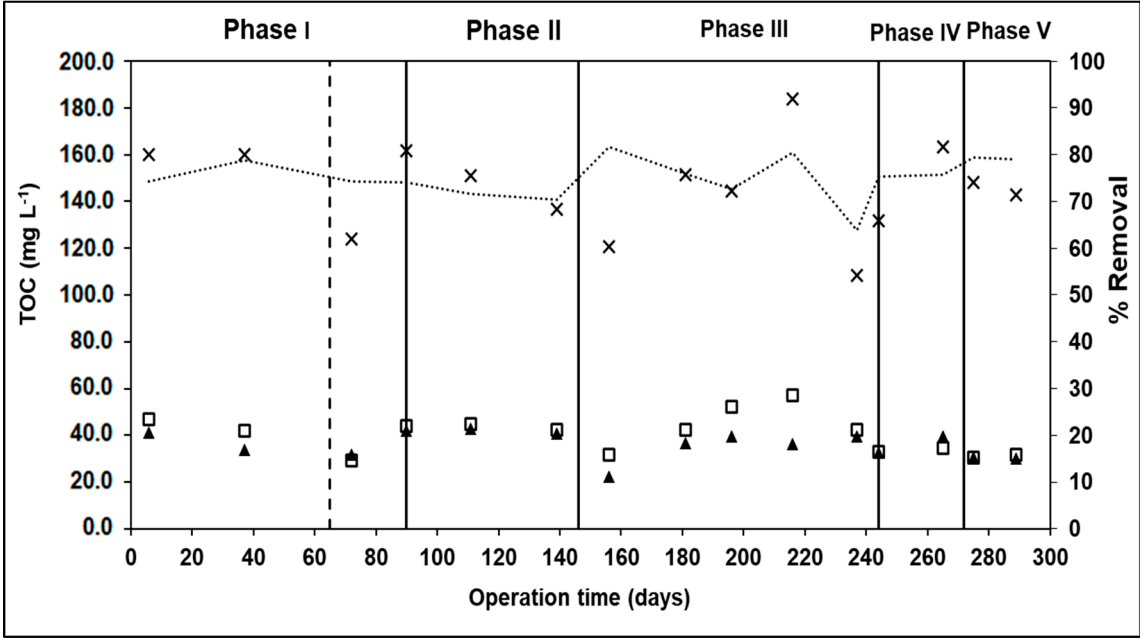
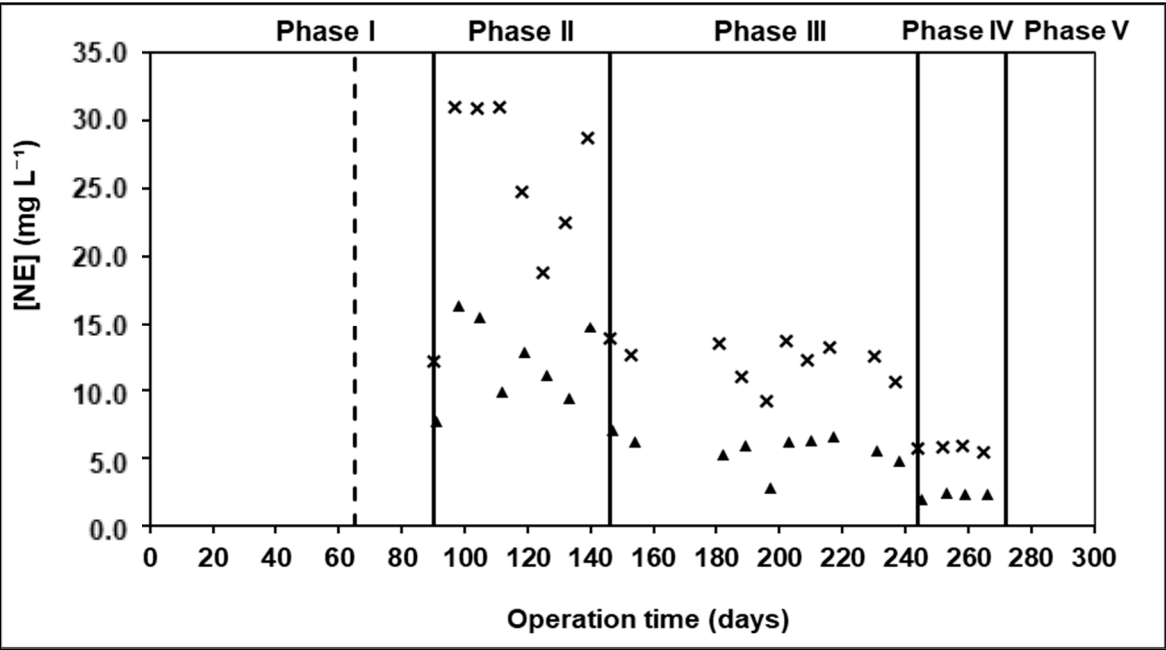


Supplementary Material



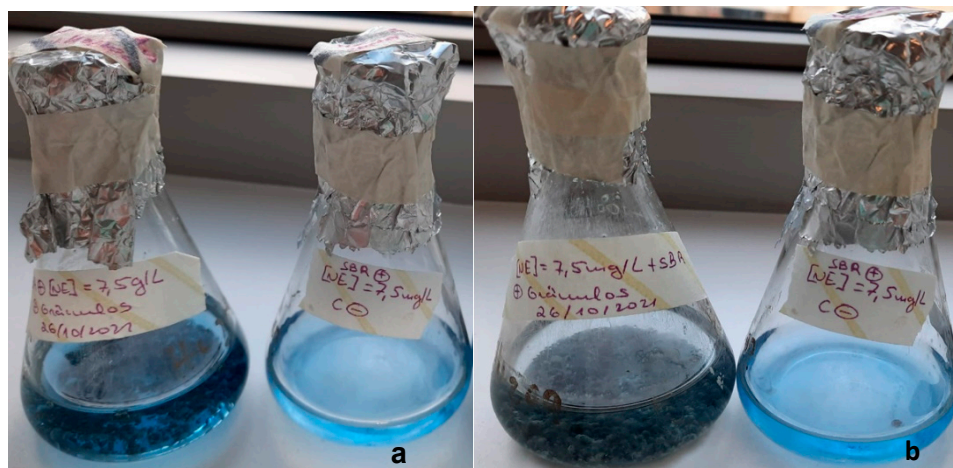
**Figure S1.** TOC during AGS-SBR operation. Concentrations in reactor influent (x), after anaerobic feeding (□) and effluent (▲), are shown. The dotted lines indicate the removal percentage. The dashed vertical line indicates the beginning of 6h-cycles.



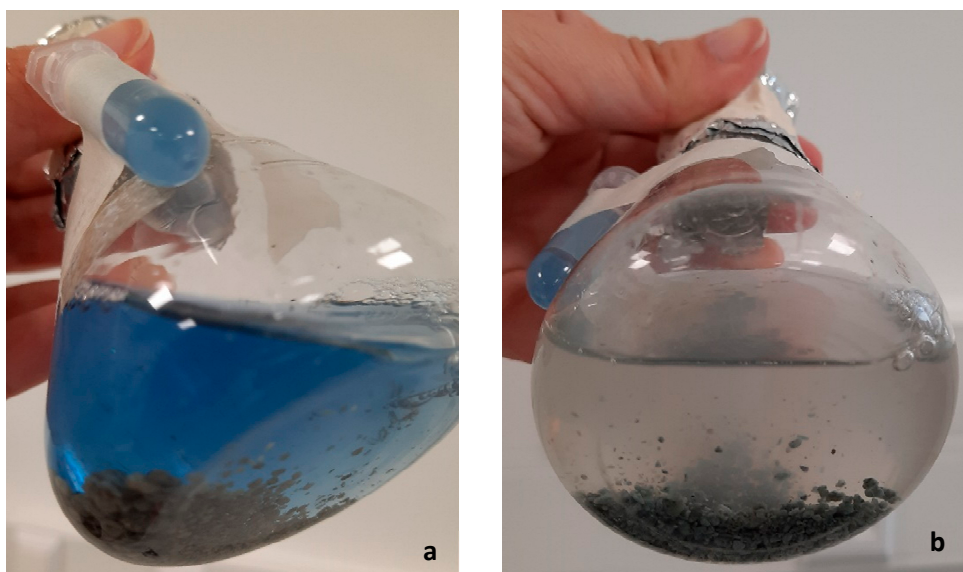
**Figure S2.** Navy Everzol ED (NE) concentrations during AGS-SBR operation. Concentrations in reactor influent (x) and effluent (▲), are shown. The dashed line indicates the beginning of 6h-cycles.



**Figure S3.** Example of the EPS extraction assays. The tube on the left contains the pellet with biomass after the EPS extraction; and the other two tubes show the supernatant with EPS resulting from the first and second successive extractions, in the middle and right tube, respectively.



**Figure S4.** Batch liquid cultures containing aerobic granules in SBR medium with Navy Everzol ED dye ( $[NE]=7.5 \text{ mg L}^{-1}$ ). The flask on the right is the abiotic control without granules. a) shows the beginning of the experiment with blue colored liquid; b) experiment after 24 h with colorless liquid and colored granules.



**Figure S5.** Batch liquid cultures containing heat-inactivated aerobic granules in SBR medium with Navy Everzol ED dye ( $[NE]=7.5 \text{ mg L}^{-1}$ . a) shows the beginning of the experiment with blue colored liquid; b) experiment after 24/48 h with colorless liquid and colored granules.