Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2016

> **Supporting Information:** 1 2 Effects of short-term exposure to linear anionic surfactants (SDBS, SLS and SDS) **3 on anammox biomass activity** 4 Sen Qiao*, Nan Zheng, Tian Tian, Cong Yu, Jiti Zhou 5 Key Laboratory of Industrial Ecology and Environmental Engineering (Ministry of 6 Education, China), School of Environmental Science and Technology, Dalian 7 University of Technology, Dalian 116024, P.R. China *Corresponding author: e-mail: qscyj@mail.dlut.edu.cn. 8 9 10 11 12 13 14 15 Number of pages - 4 16 Number of figures - 2 17 18 19 20 Batch tests

21 Batch tests lasted for 16 hours and liquid samples were obtained using a sterile 22 syringe and purged through 0.22 μ m pore size membranes for NH₄-N, NO₂-N and NO₃-N measurements at 0, 3, 5, 7, 12, 16 h, respectively. Total nitrogen contained
NH₄-N, NO₂-N and NO₃-N. Two kinds of widely applied linear anionic surfactants,
sodium dodecyl benzene sulfonate (SDBS), sodium lauryl sulfate (SLS) and sodium
dodecyl sulfonate (SDS) were selected during the batch tests.

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28 Recovery tests

Recovery tests were carried out with the anammox biomass exposed to SLS and SDS
and lasted for 16 hours. Liquid samples were obtained using a sterile syringe and
purged through 0.22 μm pore size membranes for NH₄-N, NO₂-N and NO₃-N
measurements at 0, 3, 5, 7, 12, 16 h, respectively. Total nitrogen contained NH₄-N,
NO₂-N and NO₃-N.

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36 Fig. S1 Comparison of TN removal performance of anammox biomass exposed to
37 different dosages of SDBS (a), SLS (b) and SDS (c) during the batch tests. Error bars
38 represent standard deviations of triplicate tests.



42 Fig. S2 Comparison of TN removal performance of anammox biomass exposed to
43 different dosages of SLS (a) and SDS (b) during the recovery tests. Error bars
44 represent standard deviations of triplicate tests.