

Electronic Supplementary Information (ESI) for

The N-allyl substituted effect on wormlike micelles and salt tolerance of a C₂₂-tailed cationic surfactant

Pengxiang Wang, Wanli Kang,* Hongbin Yang,* Yilu Zhao, Xia Yin, Zhou Zhu and
Xiangfeng Zhang

School of Petroleum Engineering, China University of Petroleum (East China), Qingdao 266580,
Shandong, P.R. China.

*Corresponding Author: kangwanli@126.com (W. Kang) and yhb0810@126.com (H. Yang).

Supporting Information

Some additional experimental results are shown in the following figures (Fig.S1-S5).

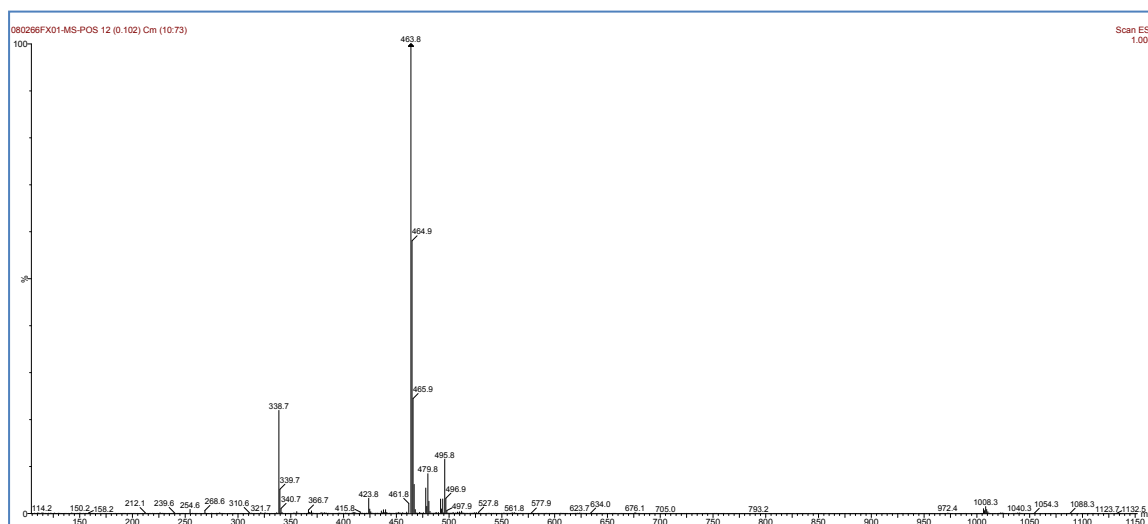


Fig.S1 HRMS spectrum of N-Erucamidopropyl-N,N-dimethyl-N-allyl-ammonium bromide (EDAA).

HRMS: Calcd: 464.8 ($[M - Br]^{+}$). Found: $m/z = 464.9$.

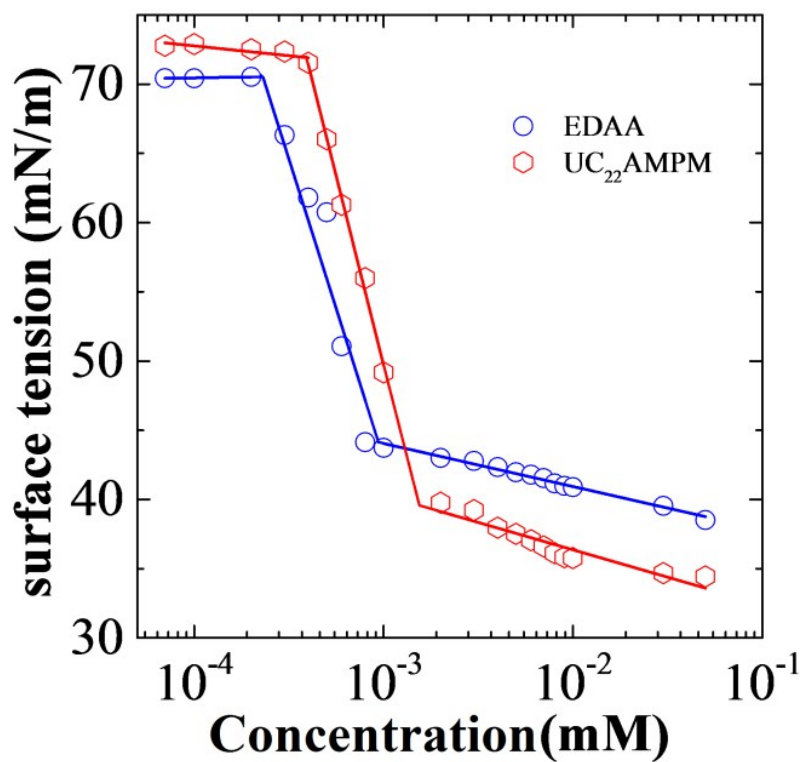


Fig.S2 Variation in surface tension with concentration of EDAA and UC₂₂AMPM at 25°C.

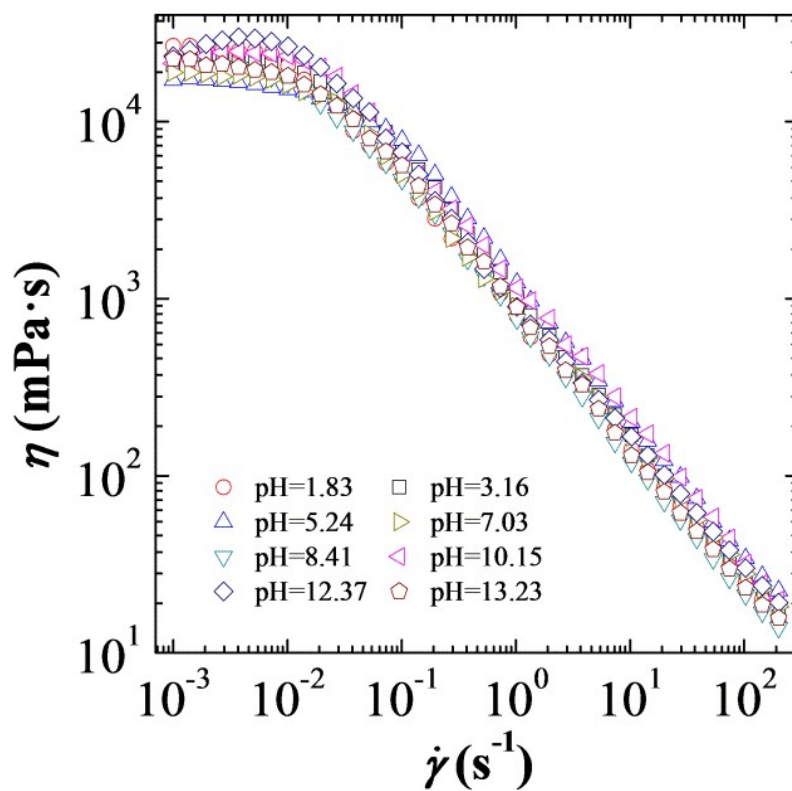


Fig.S3 Steady shear viscosity (η) plotted as a function of shear rate for 30 mM EDAA sample with various pH values at 25 °C.

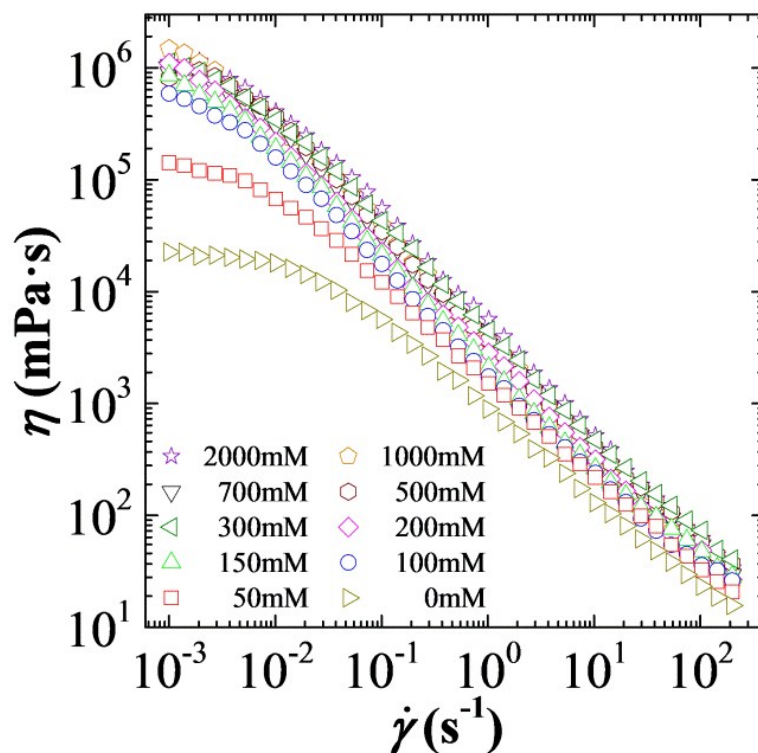


Fig.S4 Steady shear viscosity (η) plotted as a function of shear rate for 30 mM EDAA sample with various NaCl concentrations at 25 °C.

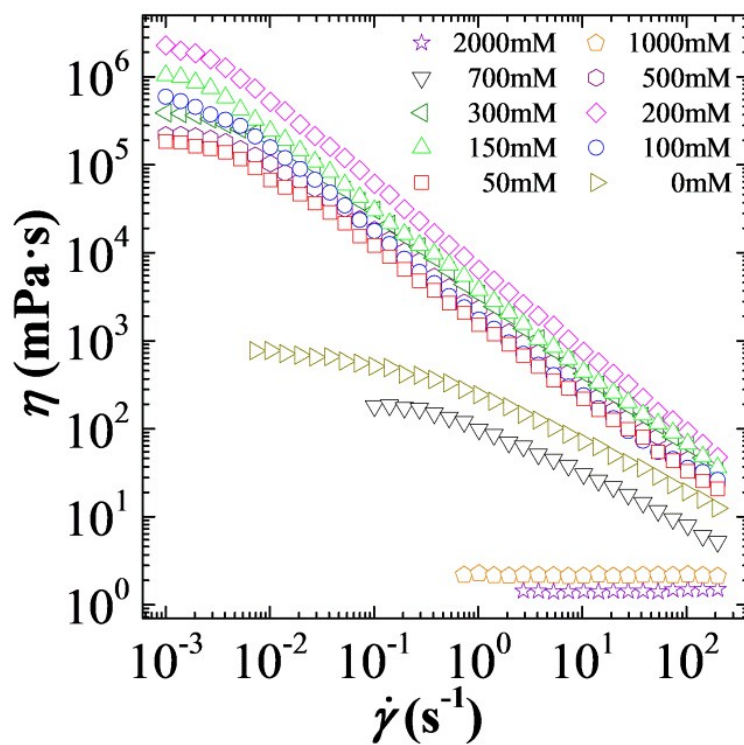


Fig.S5 Steady shear viscosity (η) plotted as a function of shear rate for 30 mM UC₂₂AMPM sample with various NaCl concentrations at 25 °C.

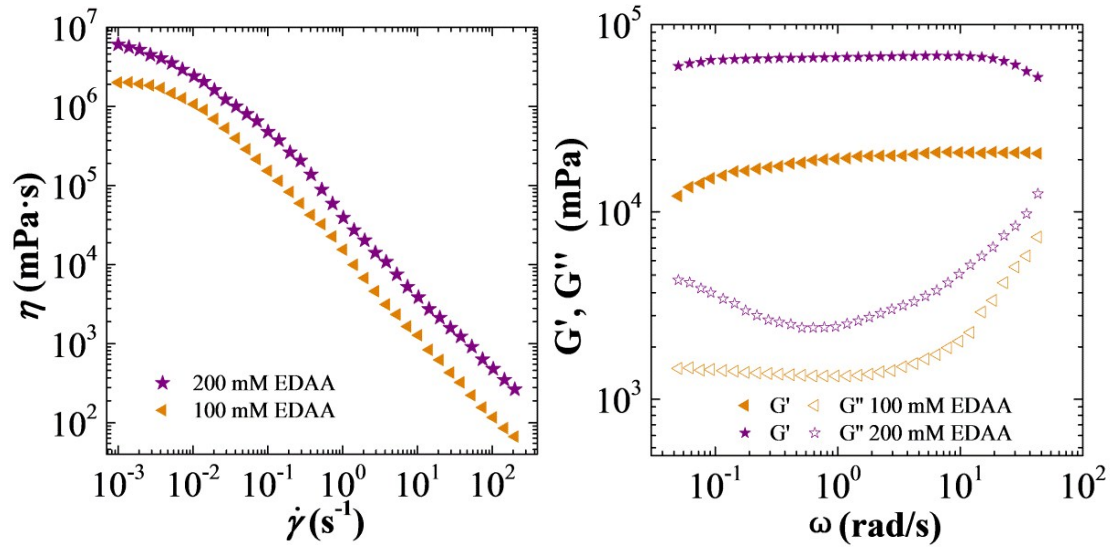


Fig.S6 Steady (left) and dynamic (right) rheological curves for 100 mM and 200 mM EDAA solutions at 25°C.