

Supporting Information

Highly Wet Aqueous Foams Stabilized by an Amphiphilic Bio-based Hydrogelator Derived from Dehydroabietic Acid

Tingting Yan, Binglei Song,* Zhenggang Cui,* Xiaomei Pei

The Key Laboratory of Synthetic and Biological Colloids, Ministry of Education,

School of Chemical and Material Engineering, Jiangnan University,

Wuxi, Jiangsu 214122, P.R. China

* E-mail: ccfsbl@jiangnan.edu.cn; cuizhenggang@hotmail.com

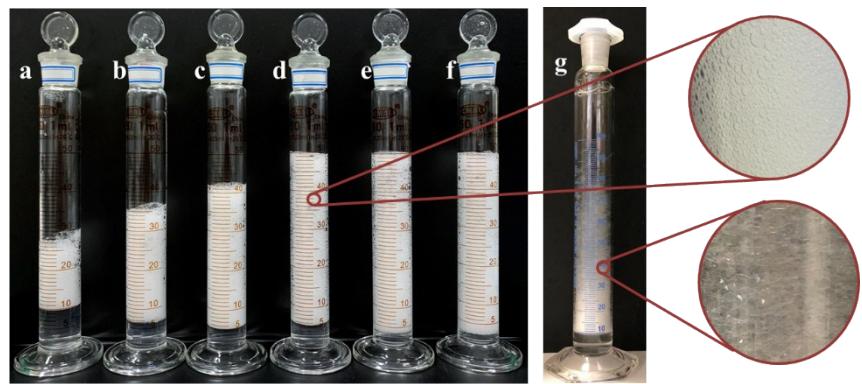


Figure S1. Digital photographs of aqueous foams formed by different concentrations of R-6-AO solutions (a-f) and 10 $\text{mmol}\cdot\text{L}^{-1}$ SDS solution (g). Surfactant concentrations of R-6-AO from a to f are 2, 4, 6, 10, 20 and 30 mM, respectively.

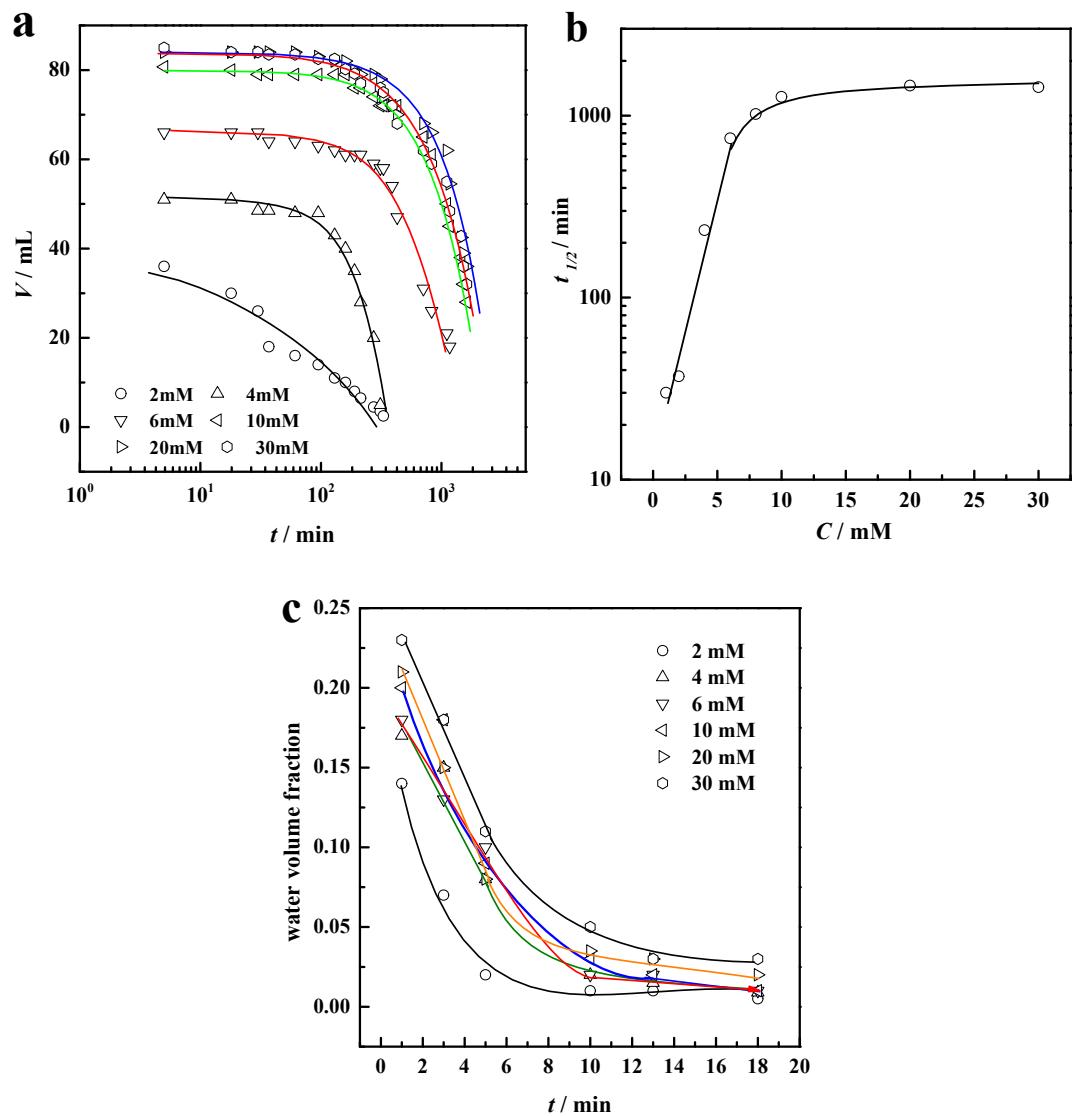


Figure S2. (a) Volume changes of foams stabilized by different concentrations of SDS over time

at 25 °C. (b) Change of the foam half-life $t_{1/2}$ with SDS concentration at 25 °C. (c) Changes of the water volume fraction of foams over time at 25 °C

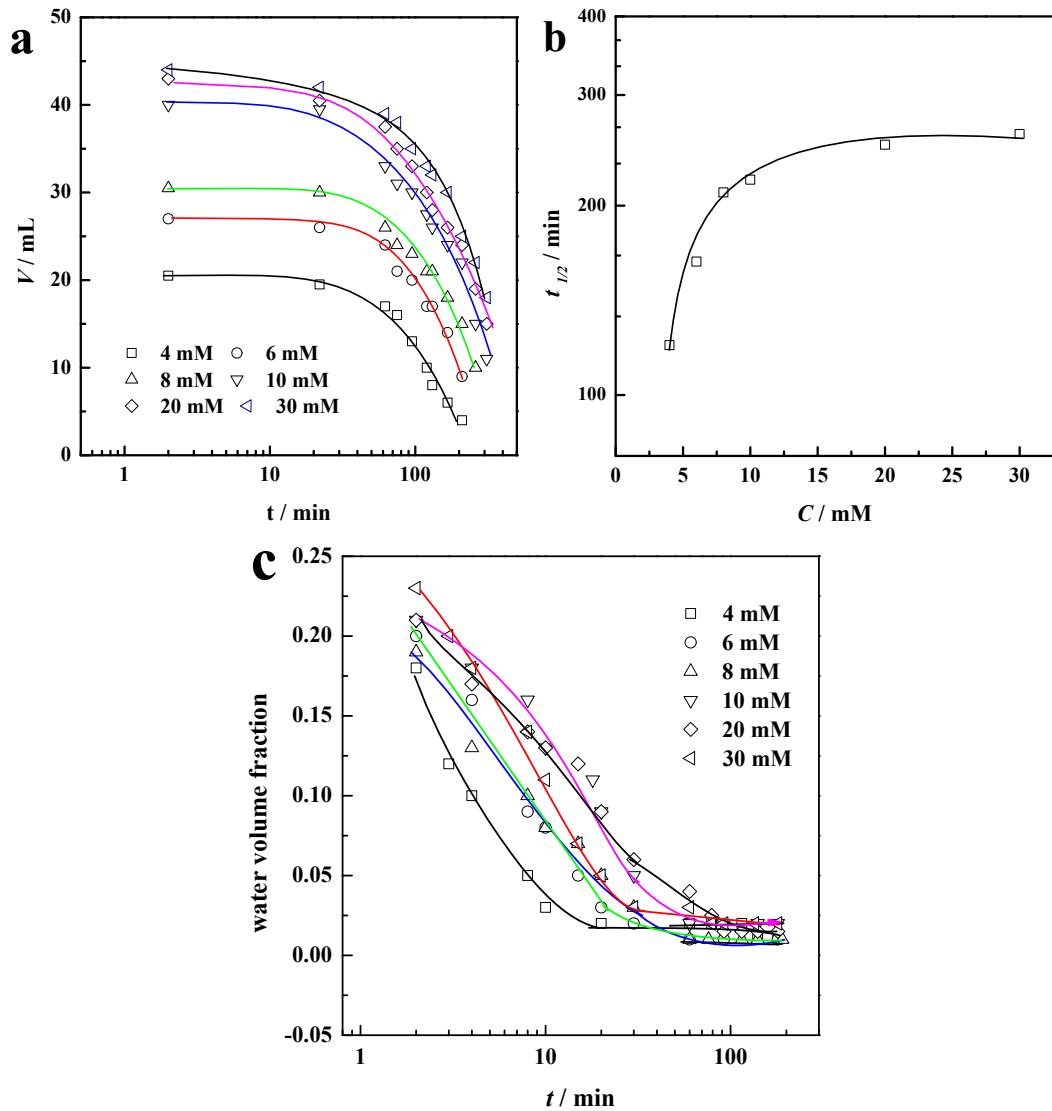


Figure S3 (a) Volume changes of foams stabilized by different concentrations of R-6-AO over time at 45 °C. (b) Change of the foam half-life $t_{1/2}$ with R-6-AO concentration at 45 °C. (c) Changes of the water volume fraction of foams over time at 45 °C

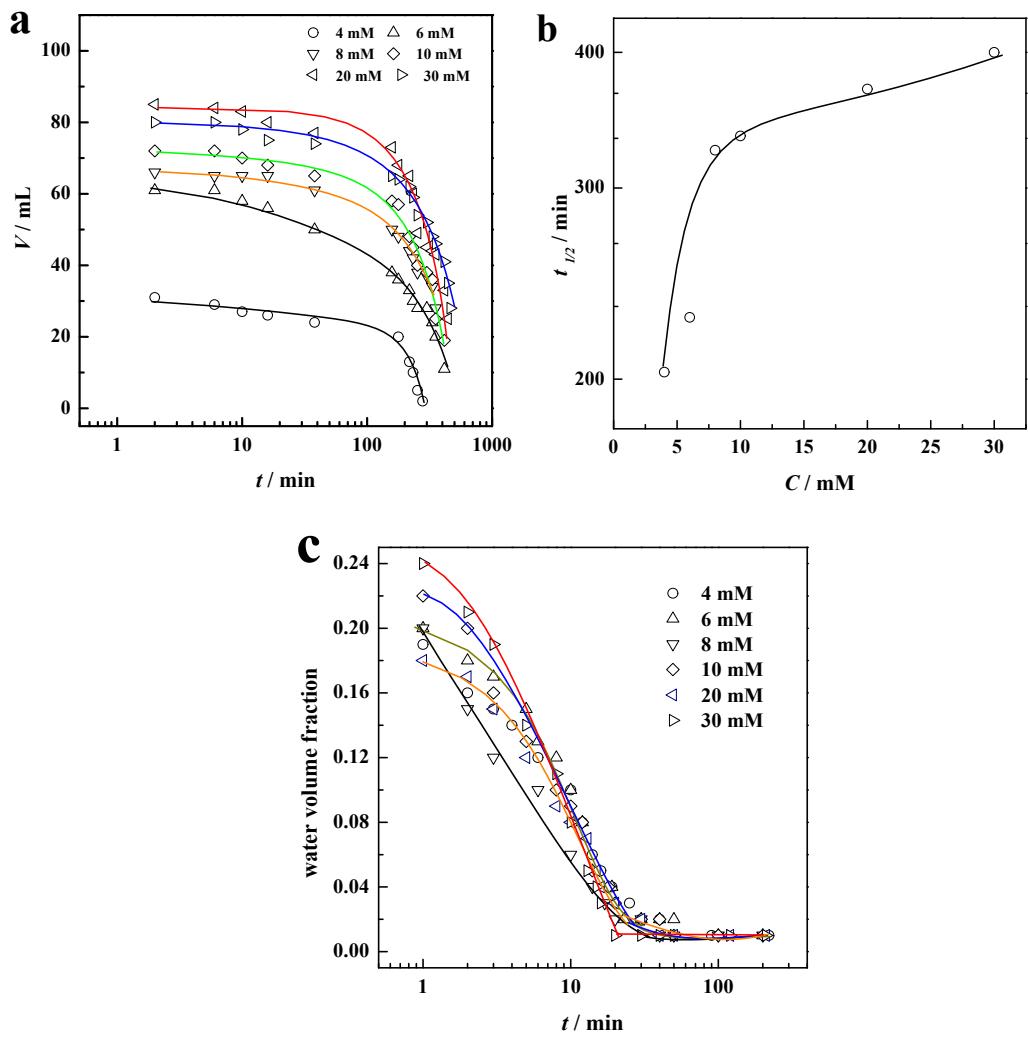


Figure S4. (a) Volume changes of foams stabilized by different concentrations of SDS over time at 45 °C. (b) Change of the foam half-life $t_{1/2}$ with SDS concentration at 45 °C. (c) Changes of the water volume fraction of foams over time at 45 °C

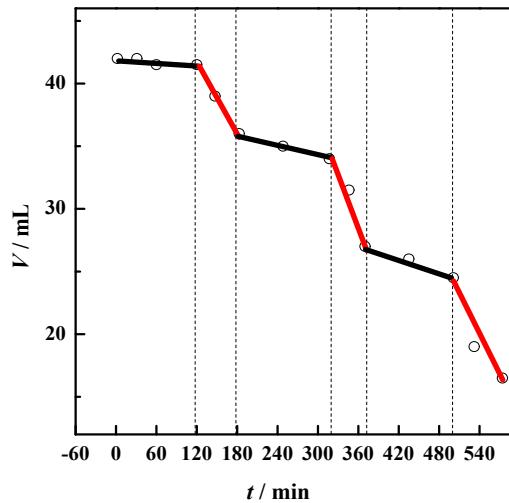


Figure S5. Volume changes of foams stabilized by 10 mM R-6-AO at 25 °C (black line) and 45

°C(red line)

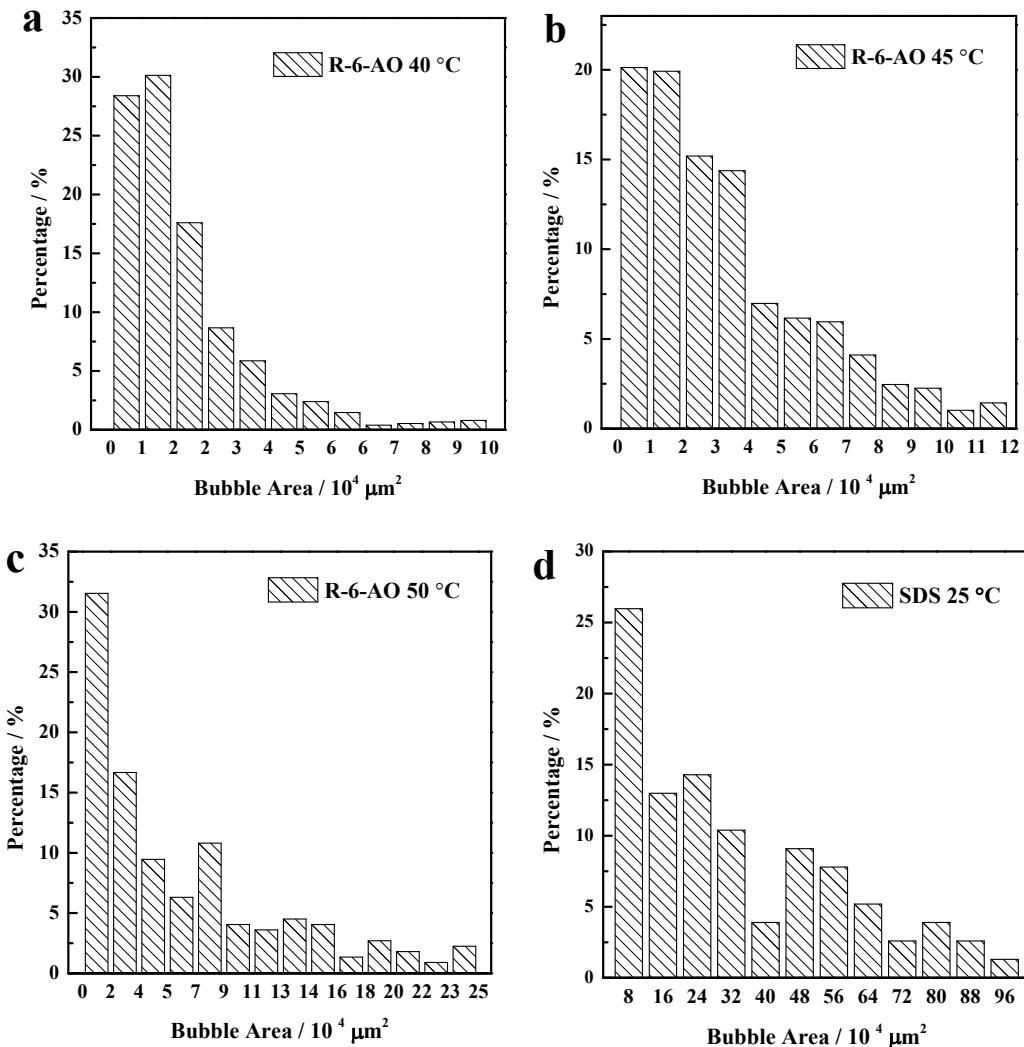


Figure S6. Bubble area distributions of foams stabled by (a)-(c)10 mM R-6-AO and (d) 10 mM SDS, the initial tempreture of the foams were (a) 40 °C, (b) 45 °C, (c) 50 °C and (d) 25°C.