

**Supporting Information to**  
**“Influence of Salt Purity on Na<sup>+</sup> and Palmitic Acid Interactions”**

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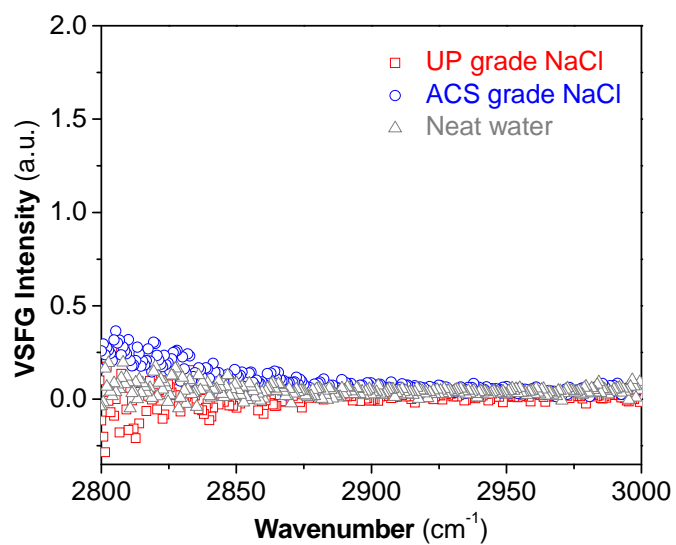
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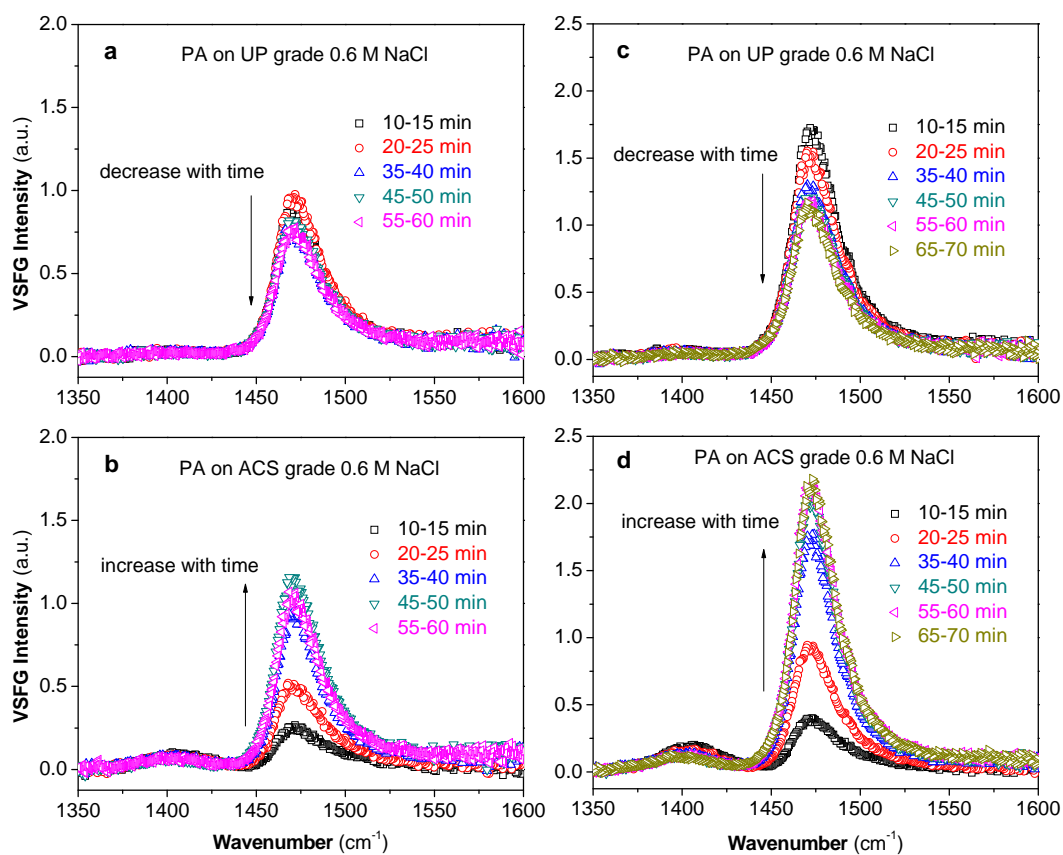
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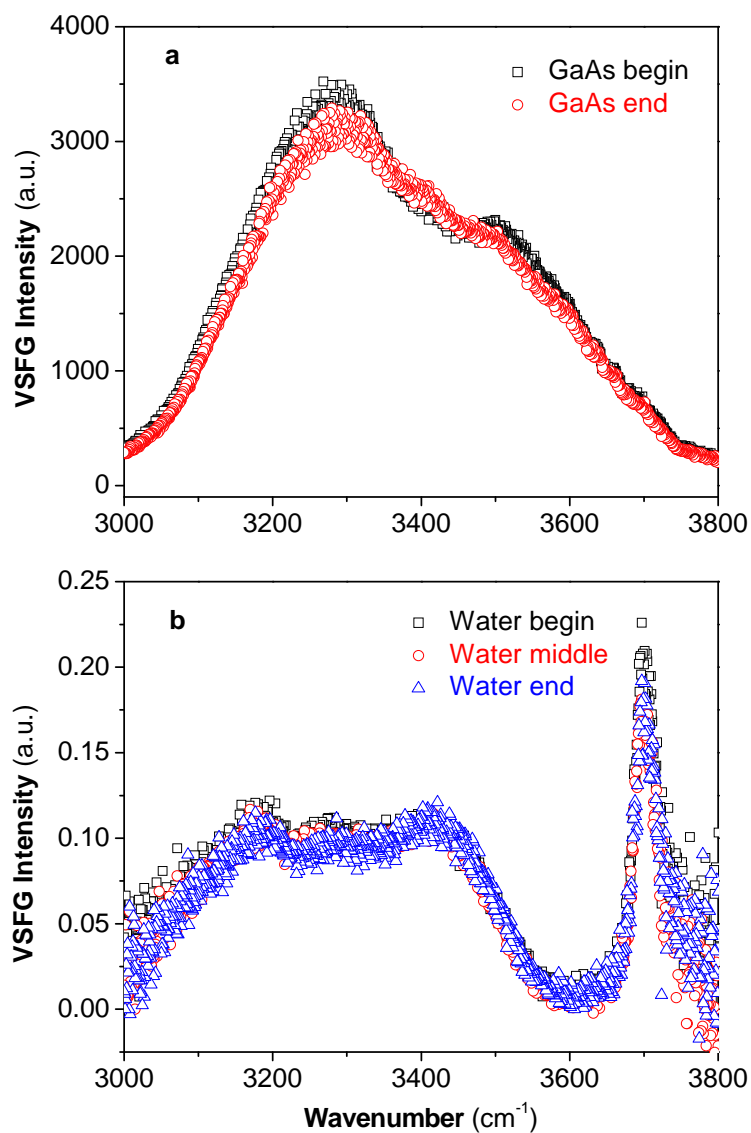
## SUPPLEMENTARY FIGURES



**Figure S1.** VSFG spectra in the CH stretching region (2800–3000 cm<sup>-1</sup>) of neat water and NaCl stock salt solutions studied after filtering 2 times.



**Figure S2.** VSF spectra of  $d_{31}$ -PA on 0.6 M NaCl solutions in  $\text{COO}^-$  stretching region ( $1350\text{--}1600\text{ cm}^{-1}$ )  $\sim 1$  h after spreading obtained on different days. (a) and (b) were from the day 2, (c) and (d) were from day 3. (a, c) UP grade 0.6 M NaCl solution. (b, d) ACS grade 0.6 M NaCl solution.



**Figure S3.** Stability of SFG system shown by the GaAs profile and VSG spectra of neat water in the OH stretching region (3000–3800 cm<sup>-1</sup>). (a) GaAs profile and (b) VSG spectra in the OH stretching region.