

Supplementary Information for

Crystal Growth of Clathrate Hydrates Formed with Methane + Carbon Dioxide Mixed Gas at Gas/liquid Interface and in Liquid Water

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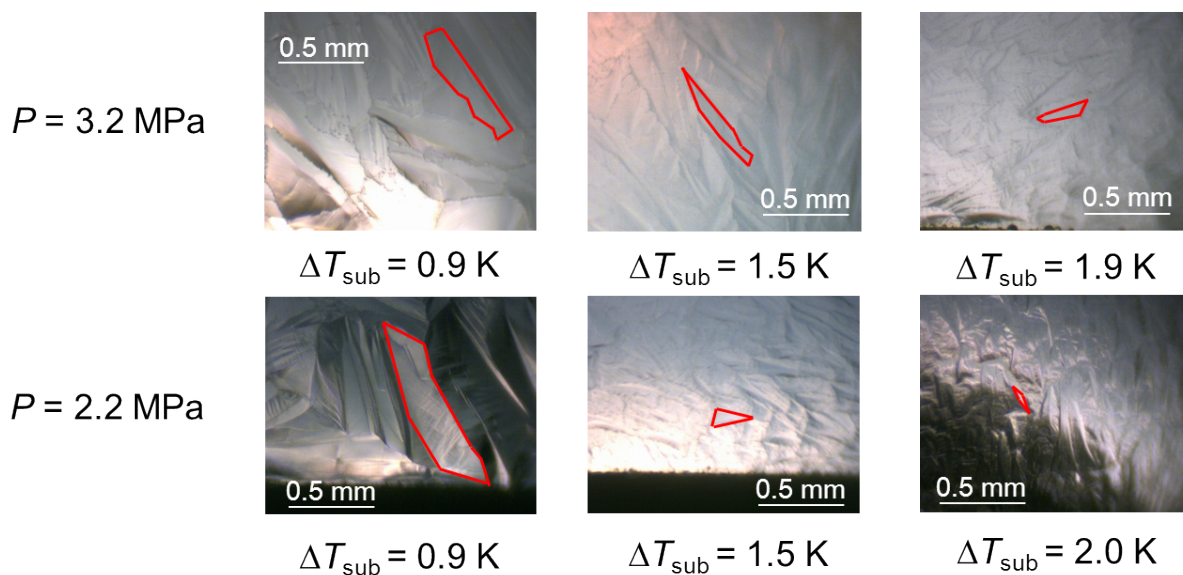


Figure S1 Classification of $\text{CH}_4 + \text{CO}_2$ (30:70) hydrate crystal morphology based on ΔT_{sub} .

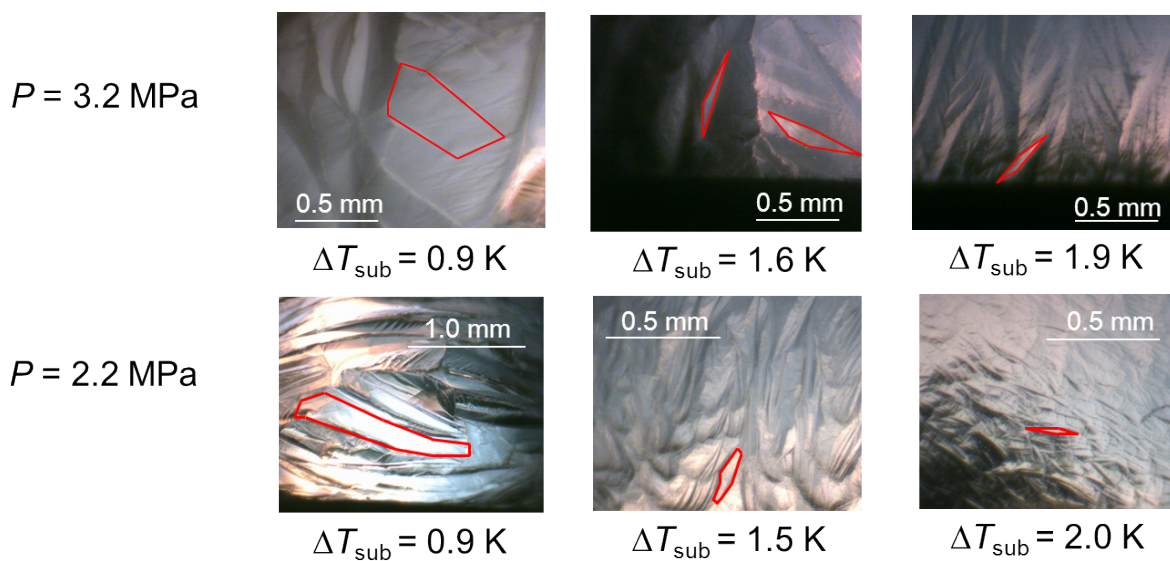


Figure S2 Classification of CO_2 hydrate crystal morphology based on ΔT_{sub} .

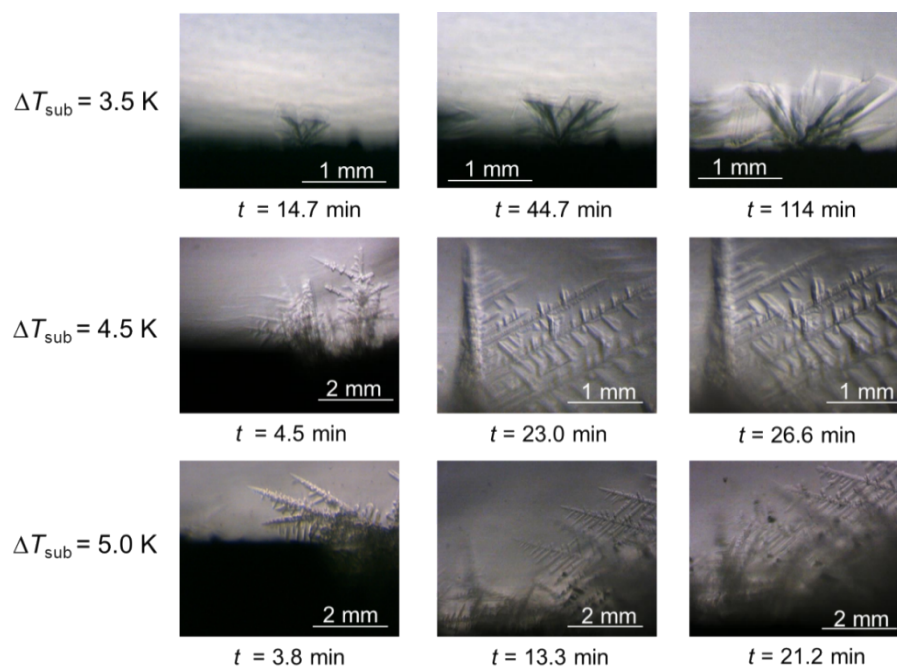


Figure S3 Difference in hydrate growth depending on ΔT_{sub} [mixed gas (30:70) system, $P = 2.2$ MPa].

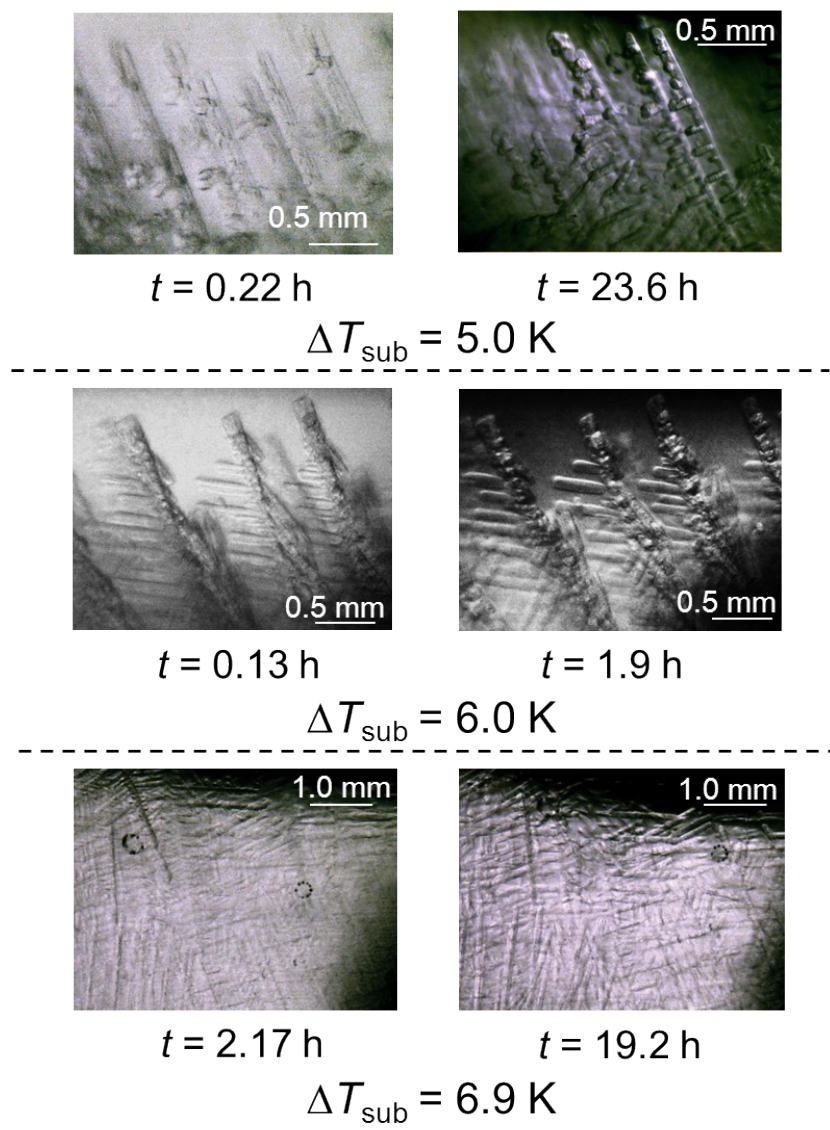


Figure S4 Sequential images of the morphological changes in the system with $\text{CH}_4 + \text{CO}_2$ (30:70) gas mixture, $P = 3.2 \text{ MPa}$.

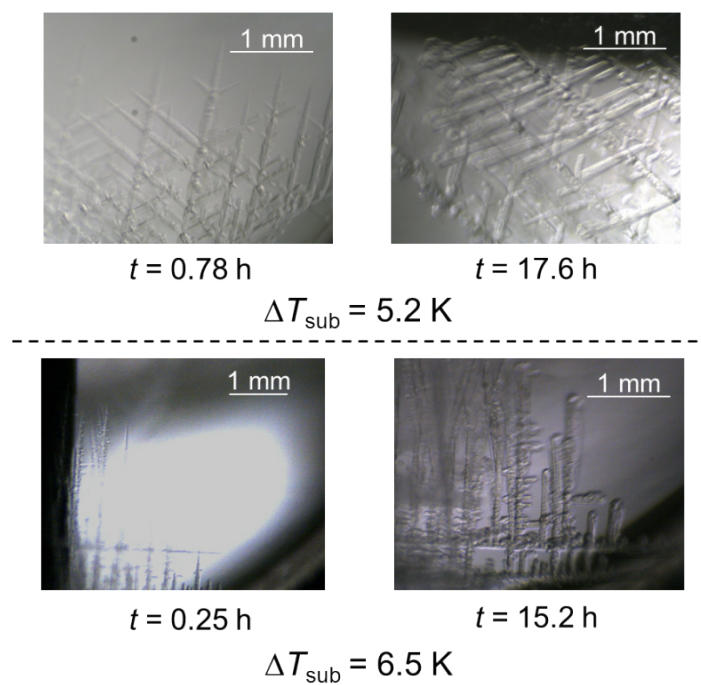


Figure S5 Sequential images of the morphological changes in the system with $\text{CH}_4 + \text{CO}_2$ (70:30) gas mixture, $P = 3.2$ MPa.