Supporting Information

Enhanced Kinetics of CO₂ Hydrate Formation under Static Conditions

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FIGURE 1. Formation kinetics of CO₂ hydrates with 100 cm³ water (with no CP) at an initial pressure of 2.7 MPa. (a) Mole number of CO₂ in gas phase. (b) Temperature and pressure profile. (c) Change in the liquid phase temperature and pressure.

FIGURE 2. Formation kinetics of CO₂ hydrates with 100 cm³ SDS solution with a concentration of 1,000 ppm at an initial pressure of 2.7 MPa. (a) Mole number of CO₂ in gas phase. (b) Temperature and pressure profile. (c) Change in the liquid phase temperature and pressure.

FIGURE 3. Formation kinetics with 100 cm³ water and 5 cm³ CP at initial pressure of 3.41 MPa. (a) Temperature and pressure profile during heating up. (b) Change in the mole number of CO₂ in the gas phase.

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Figure 1. Formation kinetics of CO$_2$ hydrates with 100 cm$^3$ water (with no CP) at an initial pressure of 2.7 MPa.

(a) Mole number of CO$_2$ in gas phase.

FIGURE 1. Formation kinetics of CO$_2$ hydrates with 100 cm$^3$ water (with no CP) at an initial pressure of 2.7 MPa.
(b) Temperature and pressure profile.

FIGURE 1. Continued.
(c) Change in the liquid phase temperature and pressure.

FIGURE 1. Continued.
FIGURE 2. Formation kinetics of CO$_2$ hydrates with 100 cm$^3$ SDS solution with a concentration of 1,000 ppm at an initial pressure of 2.7 MPa.

(a) Mole number of CO$_2$ in gas phase.
(b) Temperature and pressure profile.

FIGURE 2. Continued.
(c) Change in the liquid phase temperature and pressure.

FIGURE 2. Continued.
(a) Temperature and pressure profile during heating up.

FIGURE 3. Formation kinetics with 100 cm$^3$ water and 5 cm$^3$ CP at initial pressure of 3.41 MPa.
(b) Change in the mole number of CO$_2$ in the gas phase.

FIGURE 3. Continued.