

Thermodynamic Simulations of Isobaric Hydrate-Forming Operations for Natural Gas Storage [*Energy Fuels* 2009, 23, 849–856]. Hiroyuki Ogawa, Naotaka Imura, Tatsuya Miyoshi, Ryo Ohmura, and Yasuhiko H. Mori

Page 851, Figure 2. The two quantities, $N_{w,liq,i}$ and $N_{w,gas,i}$ indicated at the bottom of this figure should be replaced by the following single quantity: $N_{w,liq,i} + N_{w,gas,i} - N_{w,hyd,i}$. The corrected version of this figure is attached below.

Page 851, the right-hand-side column. The sentence beginning on line 7 from the bottom of the main text should be corrected as follows:

This means that the molecules counted by $N_{w,hyd,i}$ and $N_{w,liq,i} + N_{w,gas,i} - N_{w,hyd,i}$ are all taken out of the system, where $N_{w,hyd,i}$ denotes the number of water molecules contained in the hydrate.

Page 852, the left-hand-side column. The last sentence in the first paragraph should be corrected as follows:

In the system-operational practice, we should regard N_w , the nominal amount of the fresh-water supply (Figure 2), to be the sum of $N_{w,liq,i} + N_{w,gas,i} - N_{w,hyd,i}$ and the amount of the actual supply of fresh water to the system, $N_{w,in,i}$, which should be equal to $N_{w,hyd,i}$.

Page 852, the left-hand-side column. The first sentence in the second paragraph should be corrected as follows:

As the result of the mixing of the residual gases ($\sum_j N_{j,gas,i} - \sum_j N_{j,hyd,i} + \sum_j N_{j,liq,i}$) with the feed gas newly supplied ($\sum_j N_{j,in,i}$), the number of molecules of each feed-gas-originated substance in the system is changed to $N_{j,i+1}$ ($=N_{j,gas,i} - N_{j,hyd,i} + N_{j,liq,i} + N_{j,in,i}$), as indicated in Figure 2.

Page 856. The description for $N_{w,in,i}$ in the Nomenclature should be corrected as follows:

$N_{w,in,i}$ = number of water molecules newly supplied to the system during its transition from the i th to the $(i + 1)$ th equilibrium states ($=N_{w,hyd,i}$).

No correction is needed in the simulation results in relation to the above corrections to the errors that we made only in the process of writing the paper.

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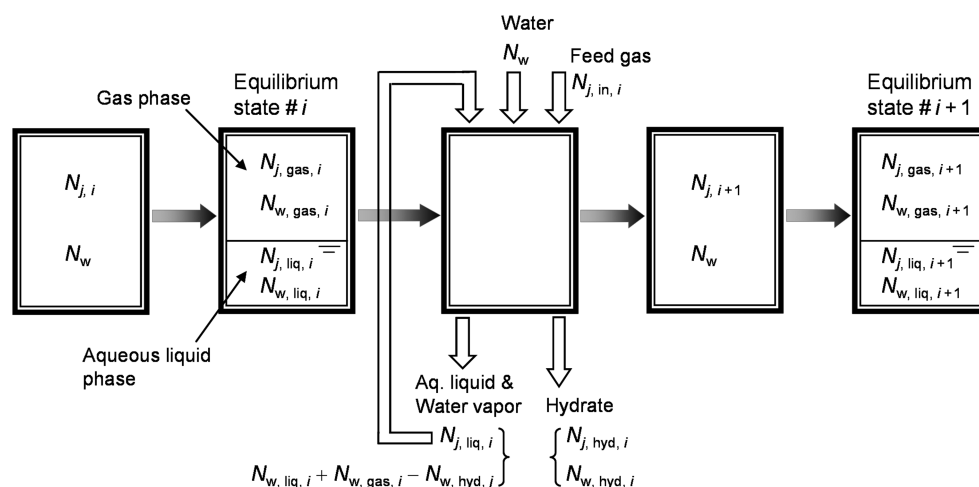


Figure 2. Conceptual illustration of the “serial equilibrium states” model for a continuous hydrate-forming operation. Each rectangular box denotes the multiphase hydrate-forming system confined in a reactor. The horizontal arrows indicate the stepwise evolution of the state of the system, while the vertical arrows indicate the flows of substances to or from the system relevant to the transition of the system from the i th to the $(i + 1)$ th equilibrium states.