Supporting Information Available

Figure S1. The snapshots of demulsification in presence of DTF demulsifiers during simulation steps: $t_1$, $0.1 \times 10^4$ time steps; $t_2$, $0.3 \times 10^4$ time steps; $t_3$, $0.5 \times 10^4$ time steps; $t_4$, $0.8 \times 10^4$ time steps; $t_5$, $1.6 \times 10^4$ time steps; $t_6$, $2.4 \times 10^4$ time steps; $t_7$, $3.2 \times 10^4$ time steps; $t_8$, $4 \times 10^4$ time steps, $t_9$, $4.5 \times 10^4$ time steps.
Figure S2. The snapshots of demulsification in presence of DBO demulsifiers during simulation steps: \( t_1, 0.1 \times 10^4 \) time steps; \( t_2, 0.3 \times 10^4 \) time steps; \( t_3, 0.5 \times 10^4 \) time steps; \( t_4, 0.8 \times 10^4 \) time steps; \( t_5, 1.6 \times 10^4 \) time steps; \( t_6, 2.4 \times 10^4 \) time steps; \( t_7, 3.2 \times 10^4 \) time steps; \( t_8, 4 \times 10^4 \) time steps, \( t_9, 10 \times 10^4 \) time steps.

Figure S3. The demulsification transform process from coalescence controlled to flocculation controlled. As seen in figure S3, the crossover point of tangents is 16000 steps.