

Supporting Information

For

High Pressure Micromechanical Force Measurements of the Effects of Surface Corrosion and Salinity on CH₄/C₂H₆ Hydrate Particle- Surface Interactions

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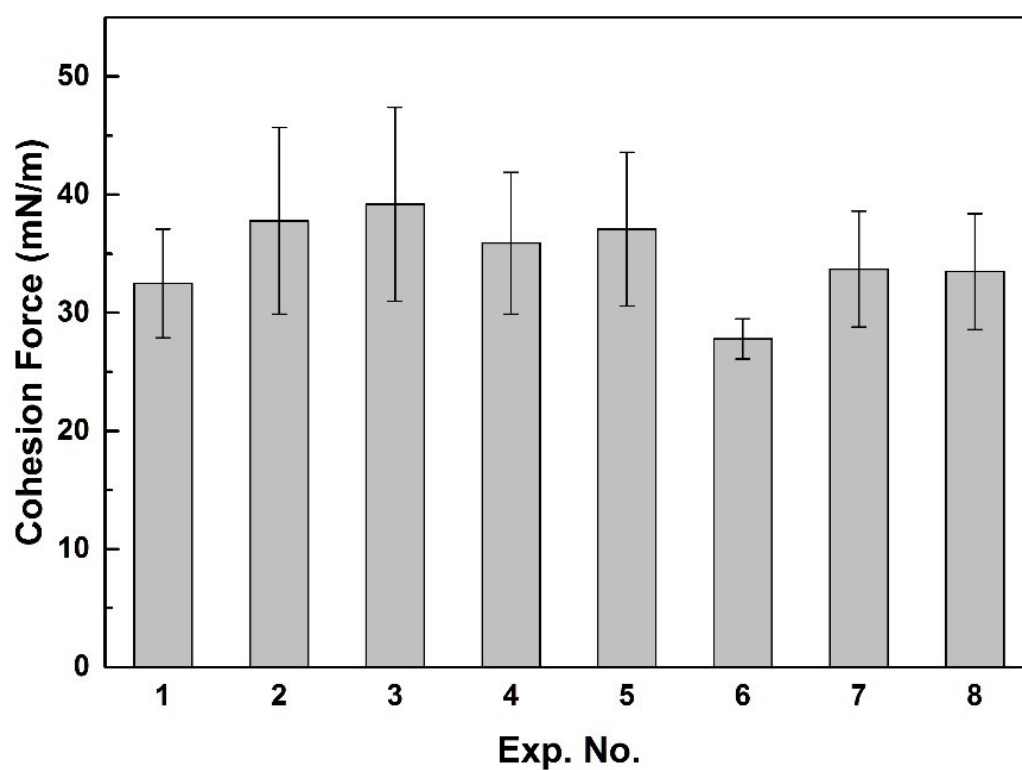


Figure S1. Cohesion force measurements without NaCl (Baseline). 8 individual experiments in total and each experiment involves at least 40 Individual pull-off repeat experiments.

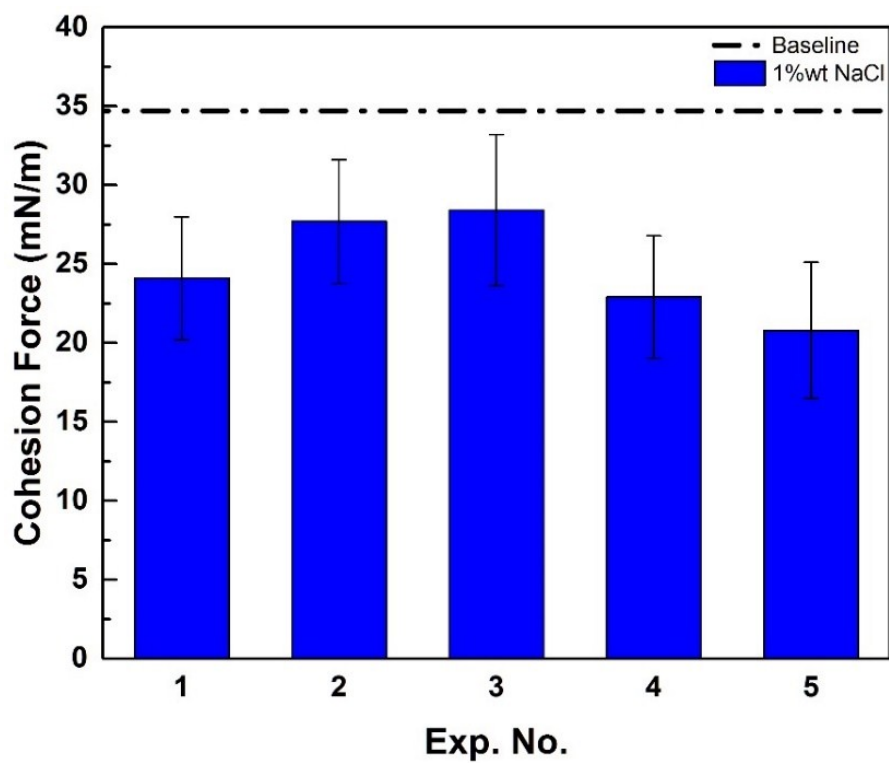


Figure S2. Cohesion forces of CH₄/C₂H₆ hydrate particles with 1.0 wt.% NaCl. 5 individual experiments in total and each experiment involves at least 40 Individual pull-off repeat experiments.

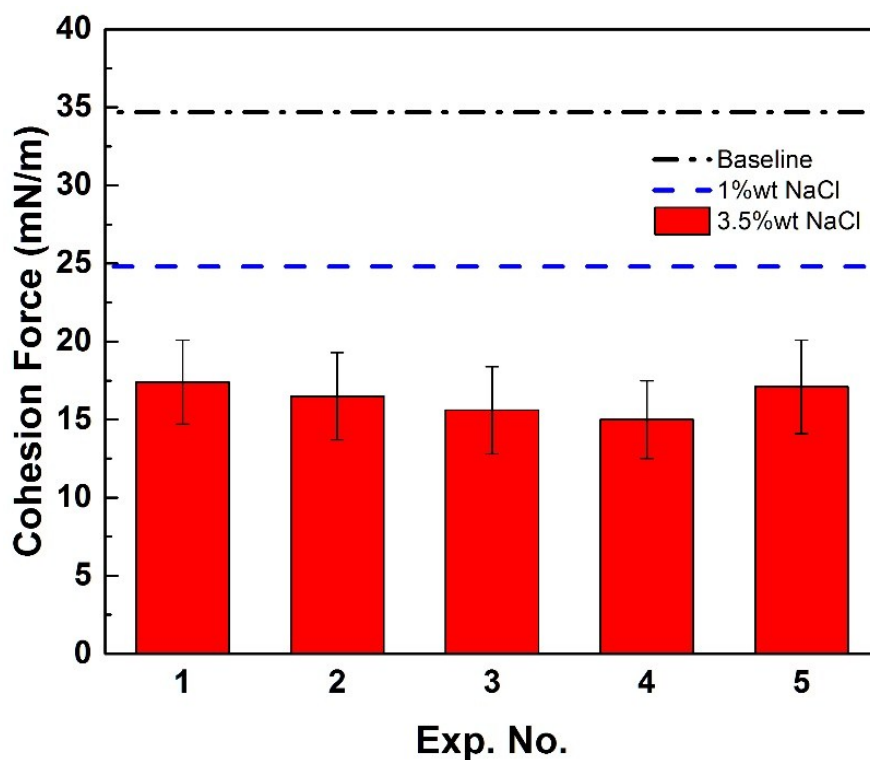


Figure S3. Cohesion forces of CH₄/C₂H₆ hydrate particles with 3.5 wt.% NaCl. 5 individual experiments in total and each experiment involves at least 40 Individual pull-off repeat experiments.

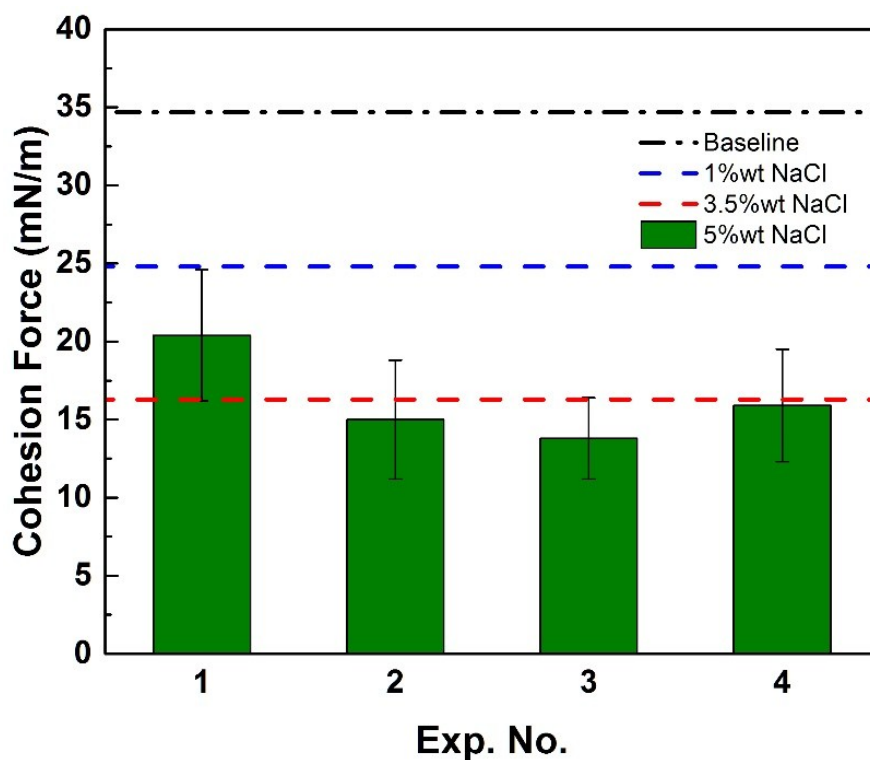


Figure S4. Cohesion forces of CH₄/C₂H₆ hydrate particles with 5.0 wt.% NaCl. 4 individual experiments in total and each experiment involves at least 40 Individual pull-off repeat experiments.



(a) 24 h



(b) 48 h



(c) 72 h



(d) 96 h



(f) 120 h

Figure S5. Hydrate film morphologies on corroded surfaces with different soak time in 5 wt.% NaCl solution