Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Inhibited Phase Behavior of Gas Hydrate in Graphene Oxide: Influences of Surface and Geometric Constraint

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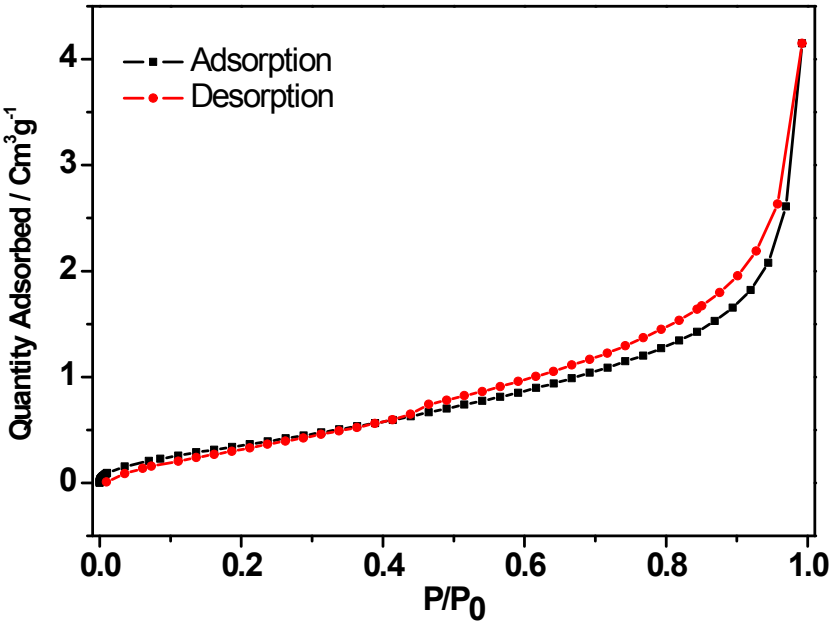

Figure S1. Ar isotherm of graphene oxide, which was used for pore analysis

Pore properties of graphene oxide.
Surface Area
Single point surface area at P/Po = 0.186973802: 1.0481 m²/g
BET Surface Area: 1.3457 m²/g
Langmuir Surface Area: 2.1803 m²/g
t-Plot External Surface Area: 1.5149 m²/g
BJH Adsorption cumulative surface area of pores
between 17.000 Å and 3000.000 Å diameter: 1.553 m²/g
BJH Desorption cumulative surface area of pores
between 17.000 Å and 3000.000 Å diameter: 1.8026 m²/g

Pore Volume
Single point adsorption total pore volume of pores
less than 2607.475 Å diameter at P/Po = 0.991904825: 0.005311 cm³/g
t-Plot micropore volume: 0.000068 cm³/g
BJH Adsorption cumulative volume of pores
between 17.000 Å and 3000.000 Å diameter: 0.005206 cm³/g
BJH Desorption cumulative volume of pores
between 17.000 Å and 3000.000 Å diameter: 0.005212 cm³/g

Pore Size
Adsorption average pore width (4V/A by BET): 157.8671 Å
BJH Adsorption average pore diameter (4V/A): 134.074 Å
BJH Desorption average pore diameter (4V/A): 115.651 Å