

Supporting information

Guest–guest and guest–host interactions in ethanol, propan-1-ol, and propan-2-ol clathrate hydrate forming systems

K. Yasuda,^{a,b,c} R. Ohmura^a and A. K. Sum^b

a. Department of Mechanical Engineering, Keio University, 3-14-1 Hiyoshi, Kohoku-ku,
Yokohama 223-8522, Japan

b. Hydrates Energy Innovation Laboratory, Chemical and Biological Engineering Department,
Colorado School of Mines, Golden, CO 80401, USA

c. Energy and Environment Program, School of Engineering, University of the Ryukyus, 1
Senbaru, Nishihara, Okinawa 902-0213, Japan

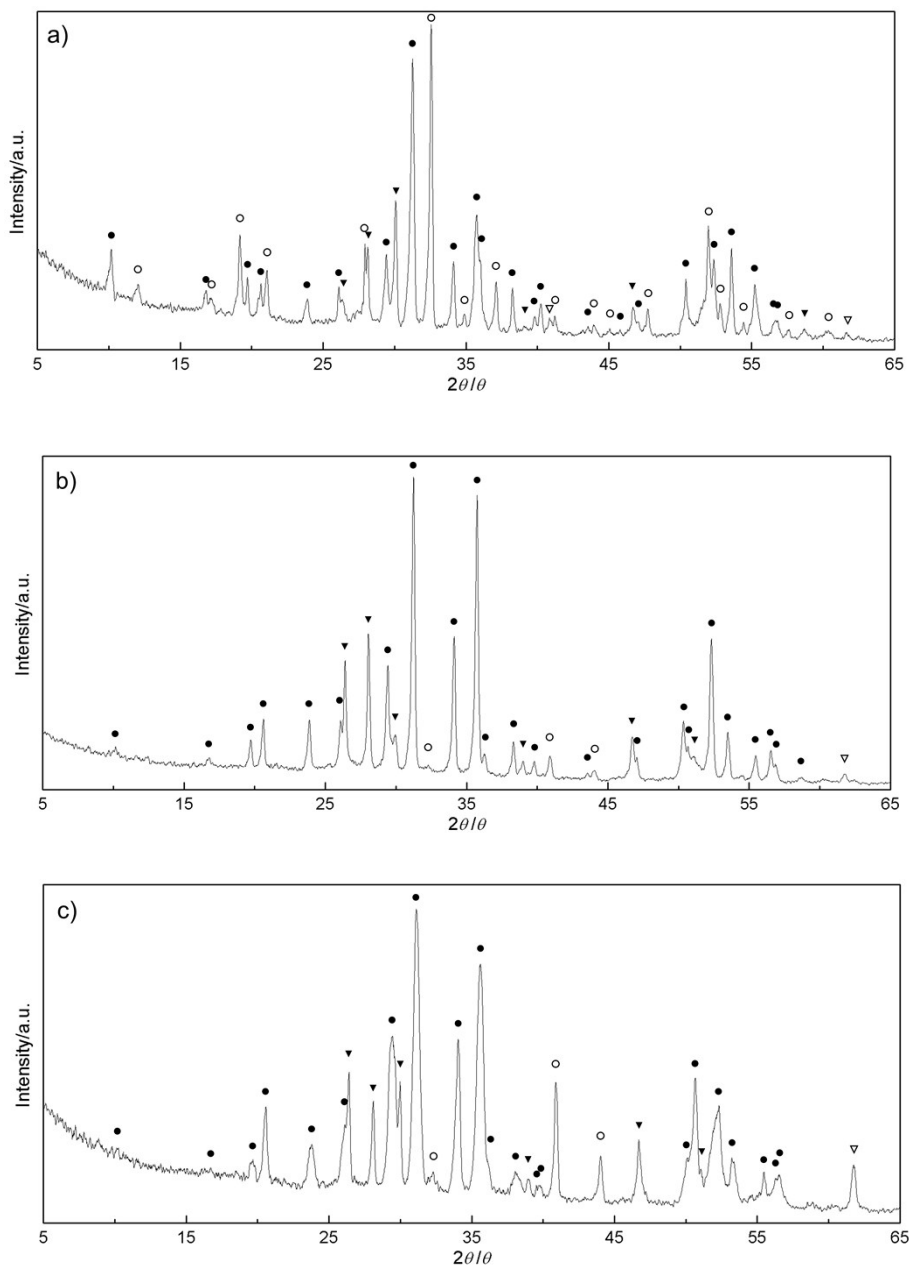


Figure S1. PXRD patterns collected for (a) the CD_4 + ethanol + D_2O system, (b) the CD_4 + propan-1-ol + D_2O system, and (c) the CD_4 + propan-2-ol + D_2O system. ∞ : Structure II hydrate. ∞ : Structure I hydrate. \square : Ice Ih. \blacklozenge : $\alpha\text{-Al}_2\text{O}_3$. The lattice constant for structure II hydrates in each system is 17.25 Å (ethanol), 17.26 Å (propan-1-ol), and 17.31 Å (propan-2-ol).