Supporting Information

A Bulk Mixture System of Cyclodextrin and Amine-terminated Polyether: Observation of Reversible Thermo-switching Behavior between Fluid and Gel-like States

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Preparation of PPRtx 2a and its ^{1}H-NMR analysis

The PPRtx **2a** was prepared in a conventional method. Amine-terminated poly(propylene glycol) **1a** (*M*n=400; 13.04 g, 32.60 mmol) was added to a saturated aqueous solution of β-CD (18.50 g, 16.30 mmol in 1000 ml H_2O) at ambient temperature, and the mixture was stirred overnight. The precipitates were collected, washed with small amount of H_2O, and dried under vacuum for 24 h to obtain **2a** as a white solid (10.8 g). ^{1}H-NMR spectrum of **2a** in DMSO-d_6 is shown in Figure S-1. Based on this spectrum, the composition ratio [β-CD]/[**1a**] was calculated to be 2.9.

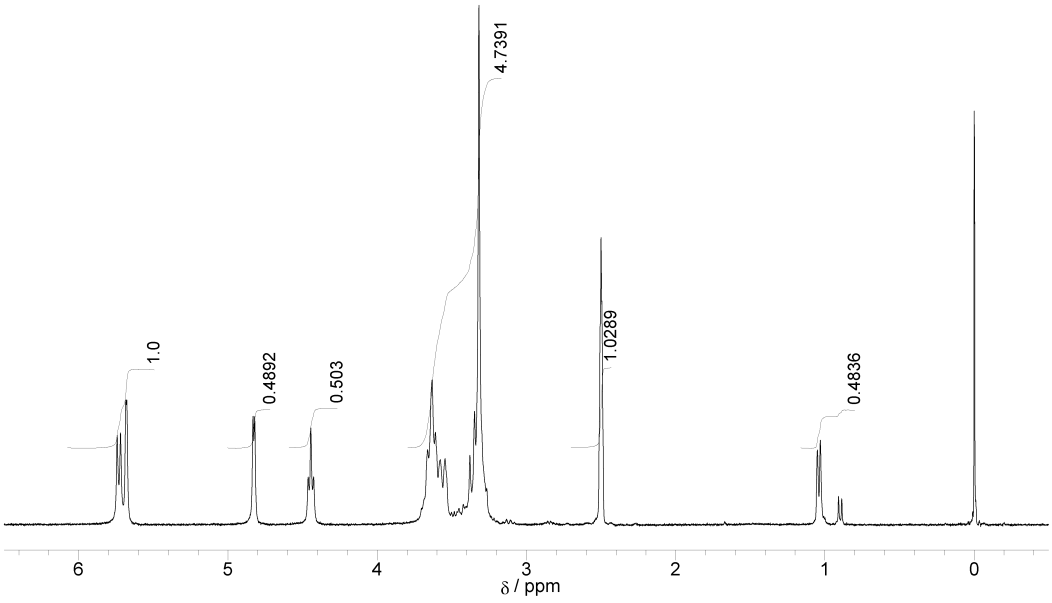

Figure S-1. ^{1}H-NMR spectrum of the PPRtx **2a** in DMSO-d_6.

Temperature-dependence of the viscosity (for Figure 2)

Changes in viscosity of the mixture of β-CD and polyether ([β-CD]/[polyether]=0.1) on temperature were measured by a BROOKFIELD CAP2000 viscometer (Brookfield Engineering Laboratories, Inc.) with a cap spindle No.1.

Differential scanning calorimetric (DSC) analysis (for Figure S-2)

DSC was measured on a SEIKO EXSTAR6000 (Seiko Instruments Inc.). The mixture of **1a** and β-CD ([β-CD]/[**1a**]=0.1) placed into an aluminum pan was heated with a scanning rate of 5 ^{o}C/min under a nitrogen atmosphere.

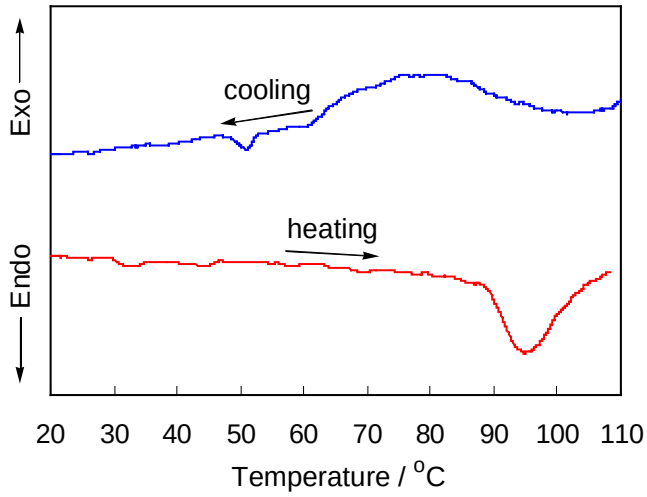

Figure S-2. DSC thermograms for the mixture of **1a** with β-CD in the heating and cooling processes