Supplementary Material (ESI) for Organic & Biomolecular Chemistry

Electronic Supplementary Information

Switching of Polymerization Activity of Cinnamoyl-α-Cyclodextrin

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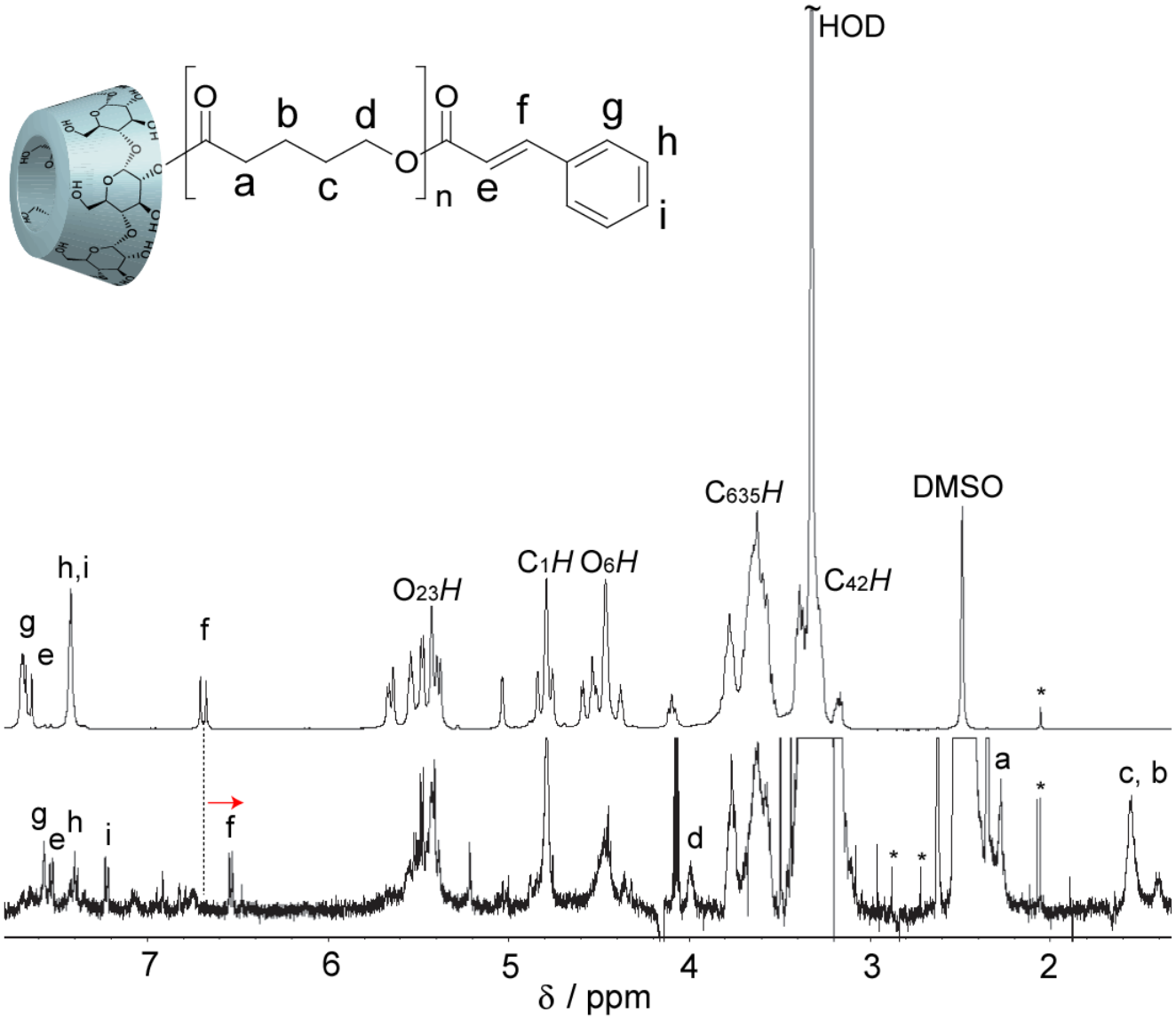

Figure S1. 500 MHz ^{1}H NMR spectrum of 2-*trans*-CiO-α-CD (upper) and the product obtained from the polymerization of δ-VL initiated by 2-*trans*-CiO-α-CD in DMSO-d_6. (*: solvent)

The spectrum of the product showed peaks derived from 2-*trans*-CiO-α-CD and poly(δ-VL). The peaks of cinnamoyl group were shifted to up-field, indicating that poly(δ-VL) was inserted the ester bond between cinnamoyl group and α-CD moiety.

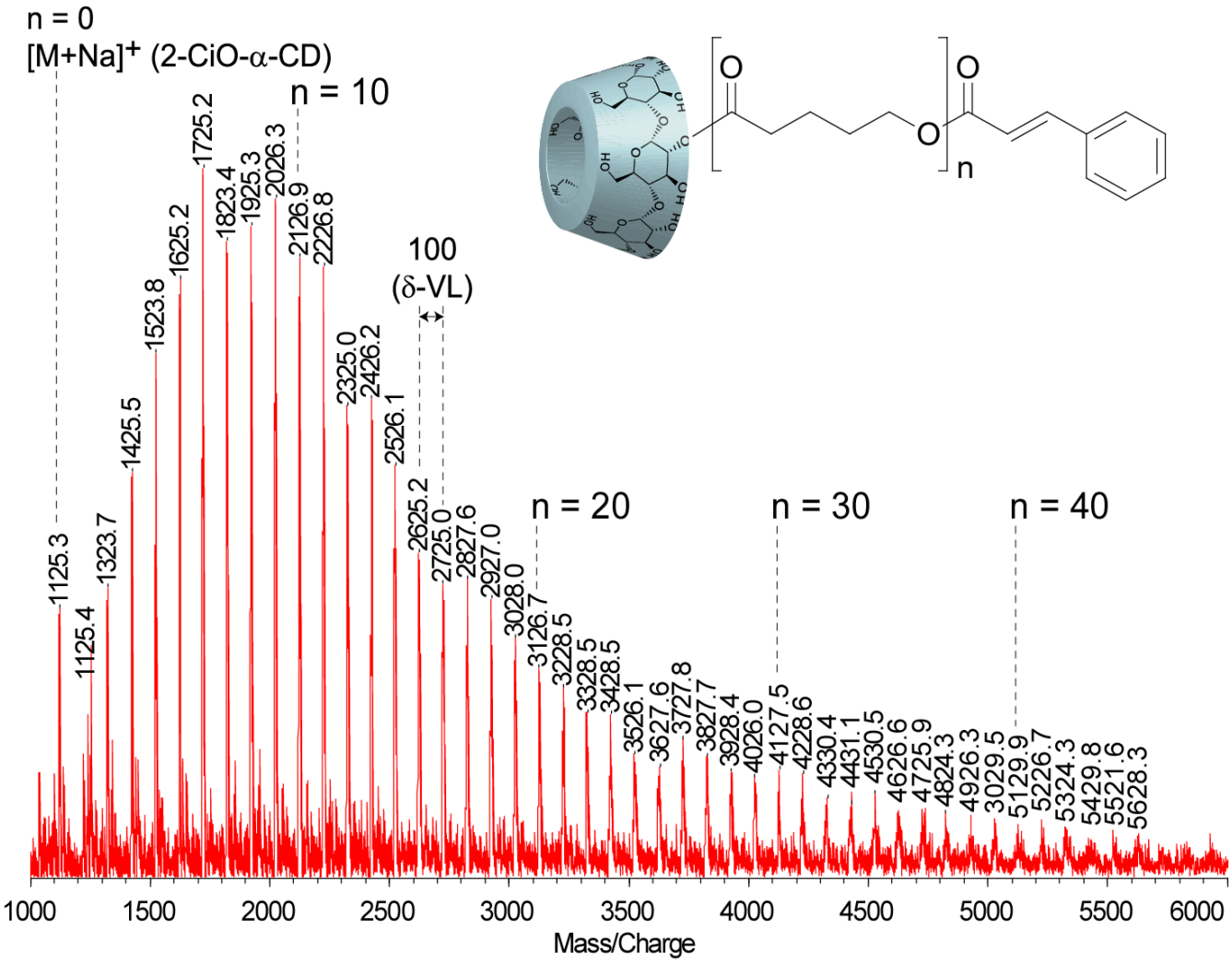

Figure S2. MALDI-TOF mass spectrum of the product obtained from the polymerization of δ-VL initiated by 2-*trans*-CiO-α-CD.

The spectrum of the product showed that each signal appears at intervals of 100 (δ-VL monomer unit) from the signal of 2-*trans*-CiO-α-CD, indicating that each polymer is covalently linked with 2-*trans*-CiO-α-CD.

The results of ^{1}H NMR (Figure S1) and MALDI-TOF mass spectrum (Figure S2) support that poly(δ-VL) chain was inserted into the ester bond between α-CD and cinnamoyl group, and single poly(δ-VL) chain propagated from the ester bond at C_2-position of α-CD.