## **Supplementary Information**



Figure 1S: Normalized H-NMR spectra of the polymerization of BHMF and dimethyl suberate by using either iCALB or DBTO as catalyst after 26 h.



Figure 2S: H-NMR spectrum of poly(2,5-furandimethylene succinate) (PFSuc).



Figure 3S: H-NMR spectrum of poly(2,5-furandimethylene glutarate) (PFGlu).



Figure 4S: H-NMR spectrum of poly(2,5-furandimethylene adipate) (PFAd).



Figure 5S: H-NMR spectrum of poly(2,5-furandimethylene pimelate) (PFPim).



Figure 6S: H-NMR spectrum of poly(2,5-furandimethylene suberate) (PFSub).



Figure 7S: H-NMR spectrum of poly(2,5-furandimethylene azelate) (PFAze).



Figure 8S: H-NMR spectrum of poly(2,5-furandimethylene Sebacate) (PFSeb).



Figure 9S: WAXD Spectrum of poly(2,5-furandimethylene succinate) (PFSuc). The amorphous parts are represented by the green curves.



Figure 10S: WAXD Spectrum of poly(2,5-furandimethylene glutarate) (PFGlu). The amorphous parts are represented by the green curves.



Figure 11S: WAXD Spectrum of poly(2,5-furandimethylene adipate) (PFAd). The amorphous parts are represented by the green curves, the crystalline parts are represented by the sharp red peaks.



Figure 12S: WAXD Spectrum of poly(2,5-furandimethylene pimelate) (PFPim). The amorphous parts are represented by the green curves, the crystalline parts are represented by the sharp red peaks.



Figure 13S: WAXD Spectrum of poly(2,5-furandimethylene suberate) (PFSub). The amorphous parts are represented by the green curves, the crystalline parts are represented by the sharp red peaks.



Figure 14S: WAXD Spectrum of poly(2,5-furandimethylene azelate) (PFAze). The amorphous parts are represented by the green curves, the crystalline parts are represented by the sharp red peaks.



Figure 15S: WAXD Spectrum of poly(2,5-furandimethylene Sebacate) (PFSeb). The amorphous parts are represented by the green curves, the crystalline parts are represented by the sharp red peaks.