Supporting Information

of

Dialkylaluminum 2-substituted 6,6-dimethylcyclopentylpyridin-7-oxylates toward

structural-differentiating the ring opening polymerization of ε-caprolactone and L-

Lactides

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Figure S1 Plot of conversion rate vs. time for the Polymerization of ϵ -CL using Al2 at 90 °C (runs 5, 7-9 in

Table 3).



Figure S2 MALDI-TOF spectrum of the obtained PCL by Al2+BnOH (run 5, Table 2)



Figure S3 ¹H NMR spectrum of the PCL using **Al2** with different amount BnOH at 90 °C (runs 5, 13-16, Table 2).



Figure S4 The MALDI-TOF mass spectrum of PCL by Al2+2BnOH (run 14, Table 2)



Figure S5 The MALDI-TOF mass spectrum of PCL by Al2+4BnOH (run 15, Table 2)



Figure S6 Plot of *M*n *vs*. Conv.% for the polymerization of L-LA at different time using **Al3+BnOH** at 110 °C (runs 3, 5-8, Table 3).



Figure S7 ¹H NMR spectrum of the PLA using **Al3** with 1 or 2 equivalent BnOH at 110 °C (runs 3, 10, Table 3).



Figure S8 VT-¹H NMR spectra of Al2 (in toluene- d_8).