

Supporting information for

Zinc Complexes Supported by Multidentate Amino-Phenolate Ligands: Synthesis, Structure and Catalysis in Ring-Opening Polymerization of *rac*-Lactide

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Figure S1. Variable-temperature ^1H NMR spectra of zinc complex **10** in toluene- d_8 over the temperature range 298 K to 198 K.

Figure S2. ^1H NMR spectra of a) active *rac*-lactide oligomer obtained by **1**/ i PrOH with $[\text{LA}]_0 : [\text{Zn}]_0 : [i\text{PrOH}]_0 = 20:1:1$ at 20 °C; b) the complex **1**; c) the ligand **L¹H** (C_6D_6 , 400 MHz).

Figure S3. ^1H NMR trace spectra of reaction between complex **9** and isopropanol in C_6D_6 (400 MHz): a) complex **9**; b) 30 min at r. t.; c) 1 h at 60 °C.

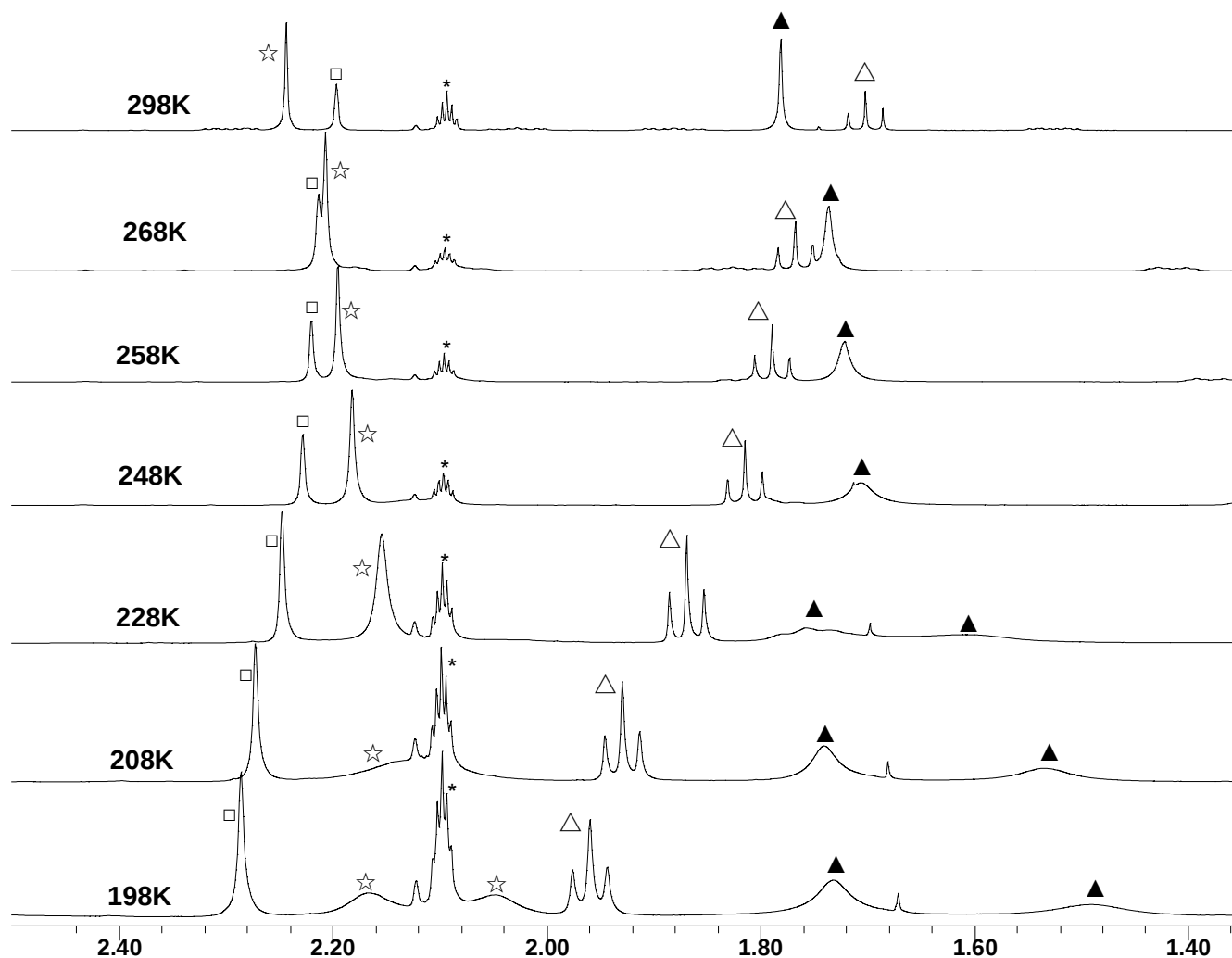


Figure S1. Variable-temperature ¹H NMR of **10** in toluene-*d*₈ over the temperature range 298K to 198K (□, Ar-CH₃ signals; ☆, Ar-N(CH₃)₂ signals; *, toluene-*d*₈ signals; △, Zn-CH₂CH₃; ▲, R-N(CH₃)₂ signals). Only the partial signals are shown.

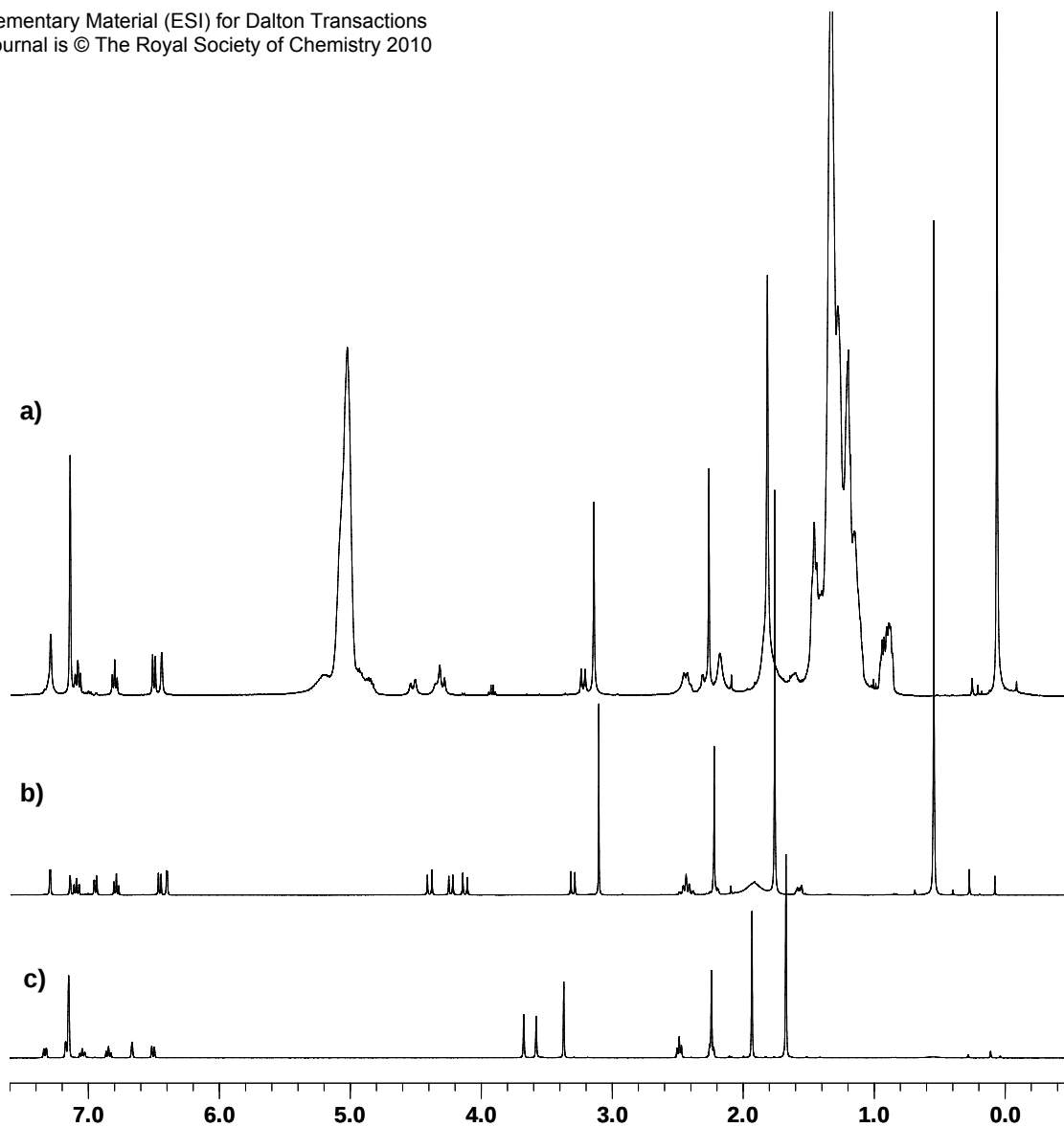


Figure S2. ^1H NMR spectra of a) active *rac*-lactide oligomer by **1**/ $^i\text{PrOH}$ with $[\text{LA}]_0 : [\text{Zn}]_0 : [^i\text{PrOH}]_0 = 20:1:1$ at 20 $^\circ\text{C}$; b) the complex **1**; c) the ligand **L¹H** (C_6D_6 , 400 MHz).

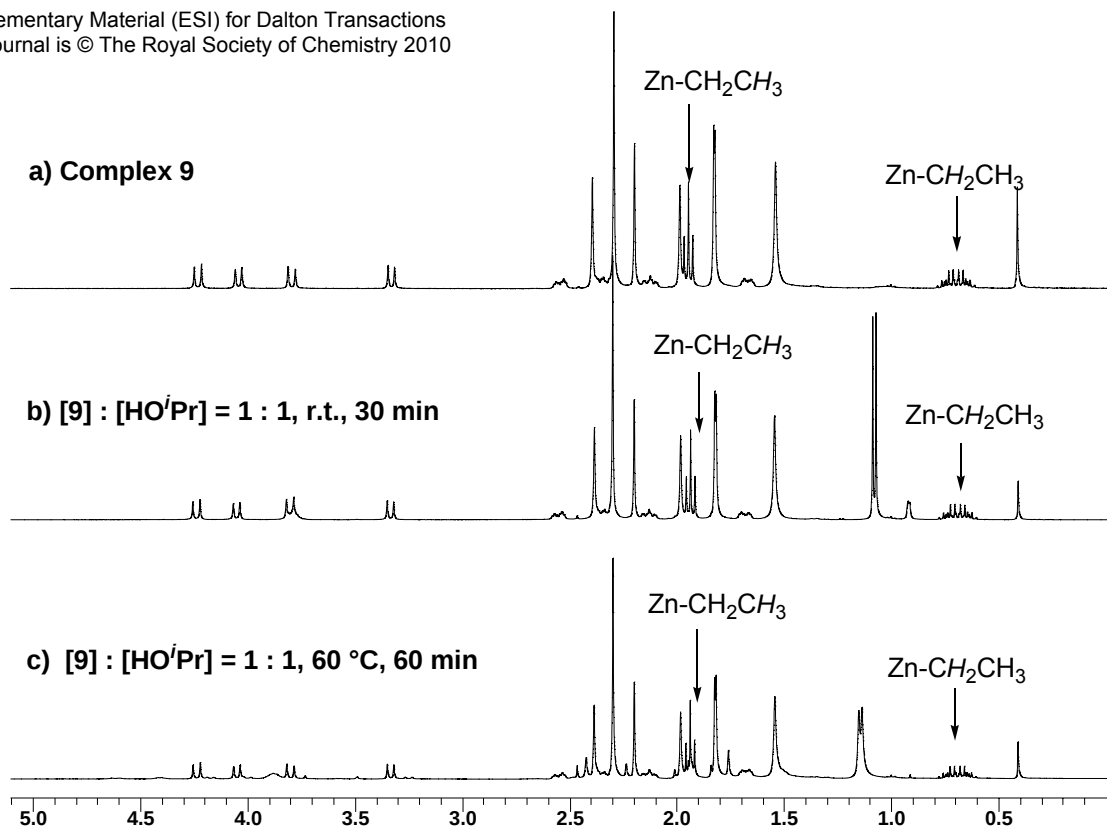


Figure S3. ¹H NMR trace spectra of reaction between complex **9** and isopropanol in C₆D₆ (400 MHz):
a) complex **9**; b) 30 min at r. t.; c) 60 min at 60 °C)