

## Supplementary Information

### Heteroleptic lanthanide amides complexes bearing carbon-bridged bis(phenolate) ligands: synthesis, structure and their application in the polymerization of $\epsilon$ -caprolactone

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Supporting figures:

**Notes:** As you suggested, in order to get better the data of NMR spectra, all the samples passed the further purification by using high vacuum pump under the condition of heating. In the NMR spectra we can not find solvent signals of hexane and toluene.

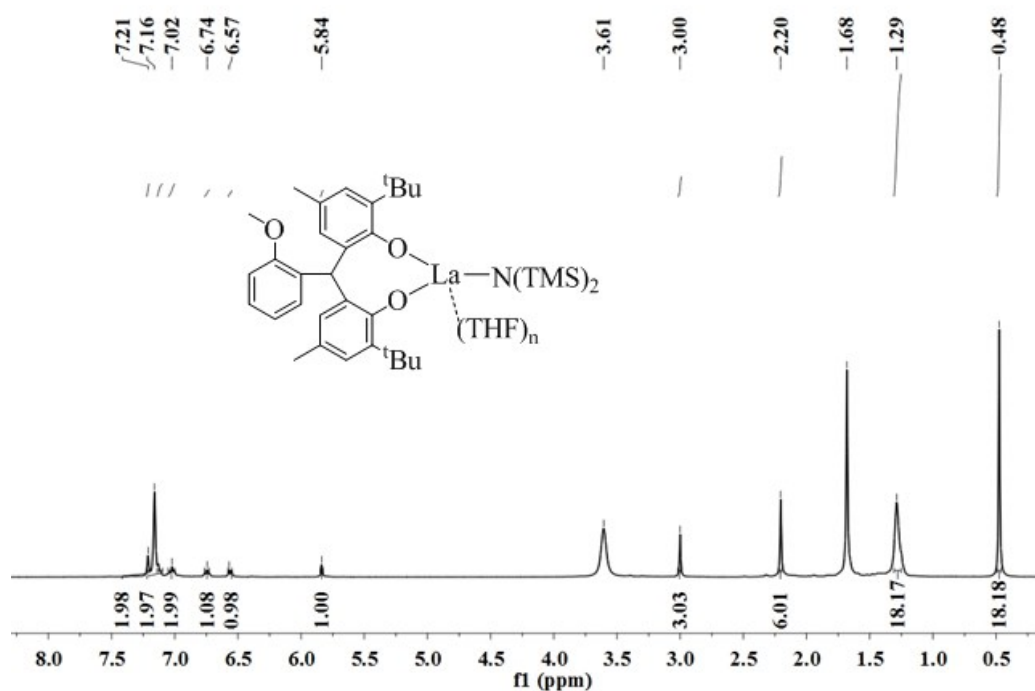


Figure S1. <sup>1</sup>H NMR of (1) in C<sub>6</sub>D<sub>6</sub>

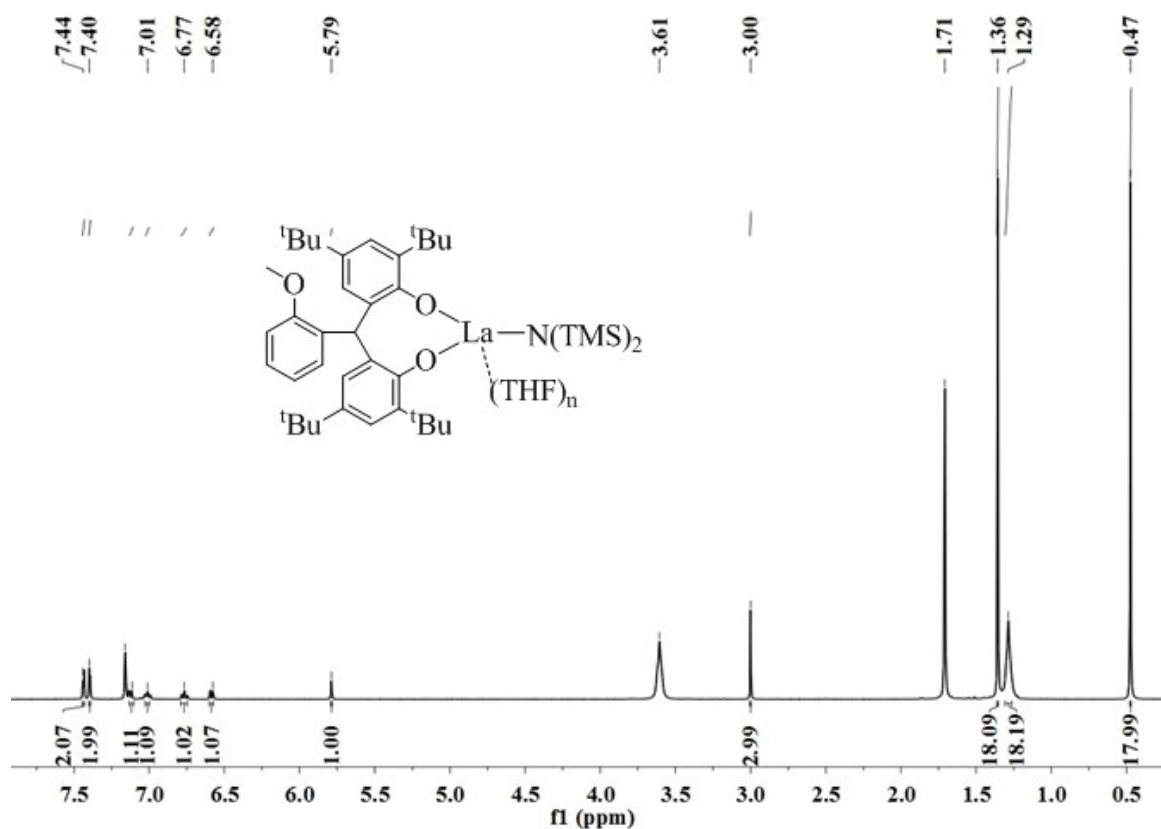


Figure S2.  $^1H$  NMR of (3) in  $C_6D_6$

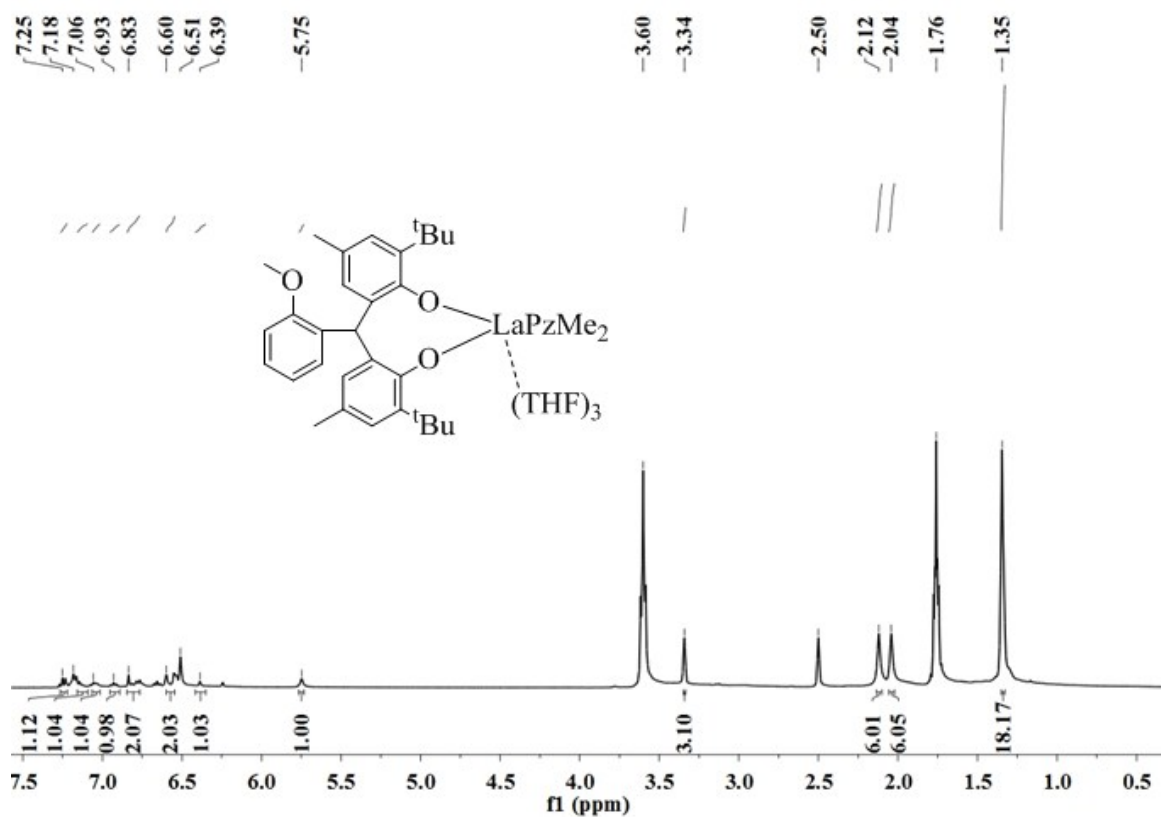


Figure S3.  $^1H$  NMR of (5) in  $DMSO-d_6$ .

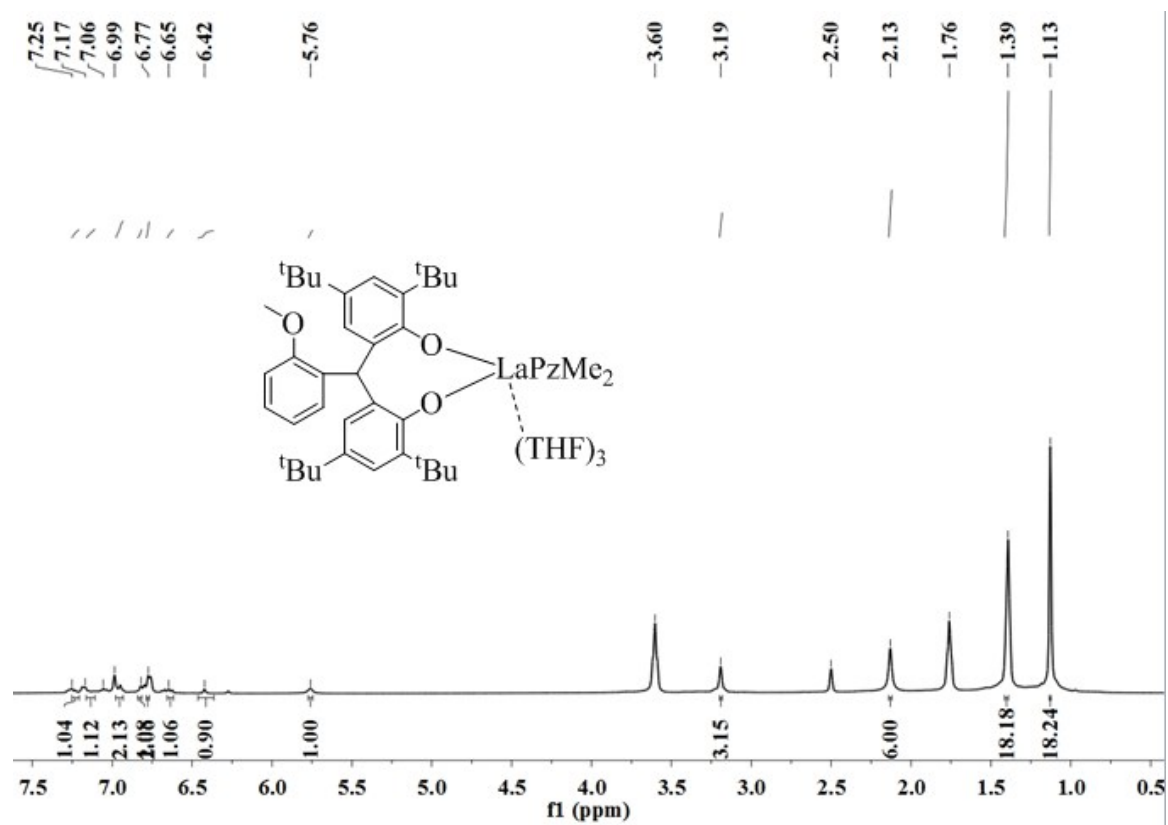


Figure S4.  $^1\text{H}$  NMR of (7) in DMSO- $\text{d}_6$