

Electronic Supplementary Material (ESI) for Dalton Transactions.
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Electronic Supplementary Information (ESI) for

Aluminium complexes containing indolyl-phenolate ligands as catalysts for ring-opening polymerization of cyclic esters

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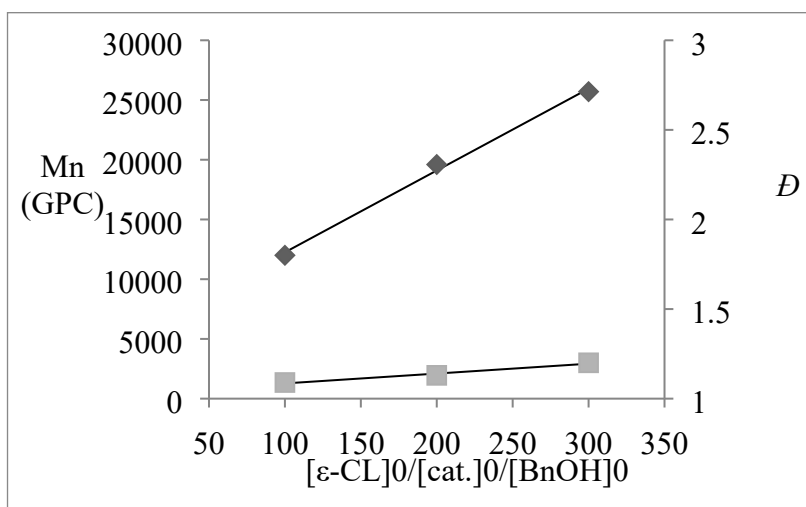


Figure S1 Polymerization of ϵ -caprolactone catalyzed by **1** in the presence of BnOH in toluene at 80 °C

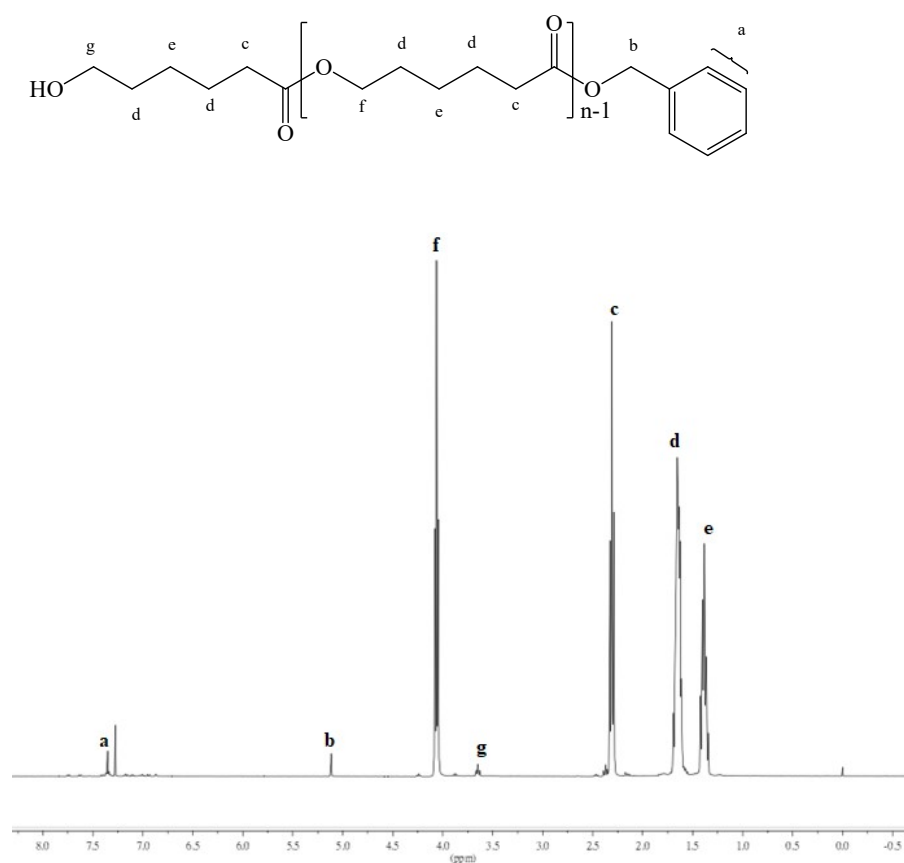


Figure S2 ¹H NMR spectrum of PCL-100 catalyzed by **1** in the presence of BnOH in toluene at 80 °C

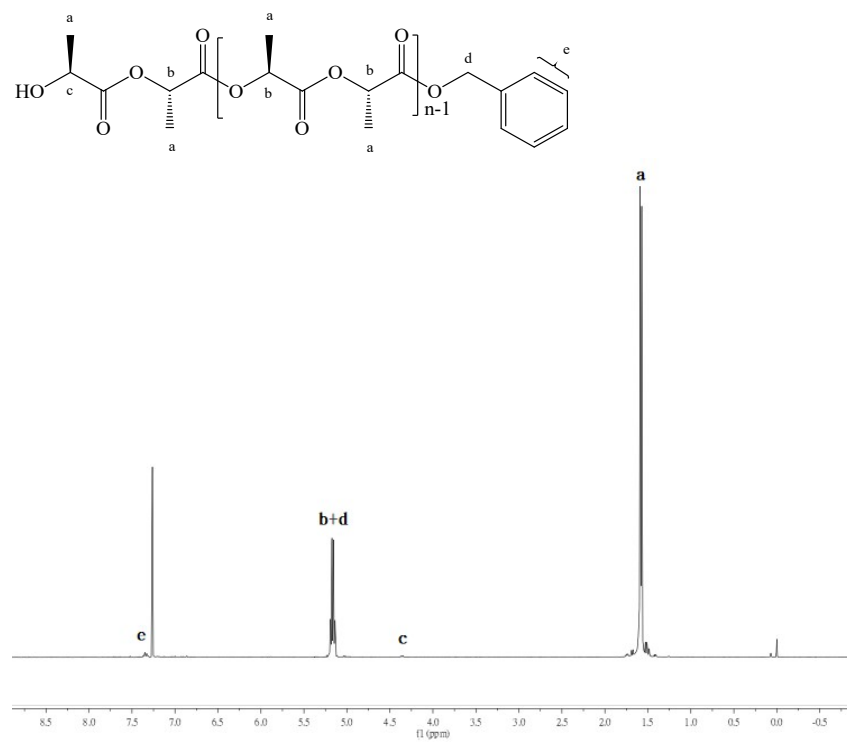


Figure S3 ¹H NMR spectrum of PLA-100 catalyzed by **1** in the presence of BnOH in toluene at 100 °C

Table S1 Summary of crystal data for compound **5**

5

Formula	C ₂₈ H ₂₀ AlClN ₂ O ₂
Fw	478.89
T, K	150(2)
Crystal system	Monoclinic
Space group	C ₂ /c
<i>a</i> , Å	15.5736(7)
<i>b</i> , Å	10.6795(7)
<i>c</i> , Å	14.9564(9)
α°	90
β°	113.626(3)
γ°	90
<i>V</i> , Å ³	2279.0(2)
Z	4
ρ _{calc} , Mg/m ³	1.396
μ(Mo Kα), mm ⁻¹	0.236
Reflections collected	22697
No. of parameters	155
<i>R</i> 1 ^a	0.0324
w <i>R</i> 2 ^a	0.0845
GoF ^b	1.038

^a $R1 = [\sum (|F_o| - |F_c|) / \sum |F_o|]$; $wR2 = [\sum w(F_o^2 - F_c^2)^2 / \sum w(F_o^2)^2]^{1/2}$, $w = 0.10$.

^b $GoF = [\sum w(F_o^2 - F_c^2)^2 / (N_{\text{reflns}} - N_{\text{params}})]^{1/2}$.

Spectra data of ligand precursors and complexes

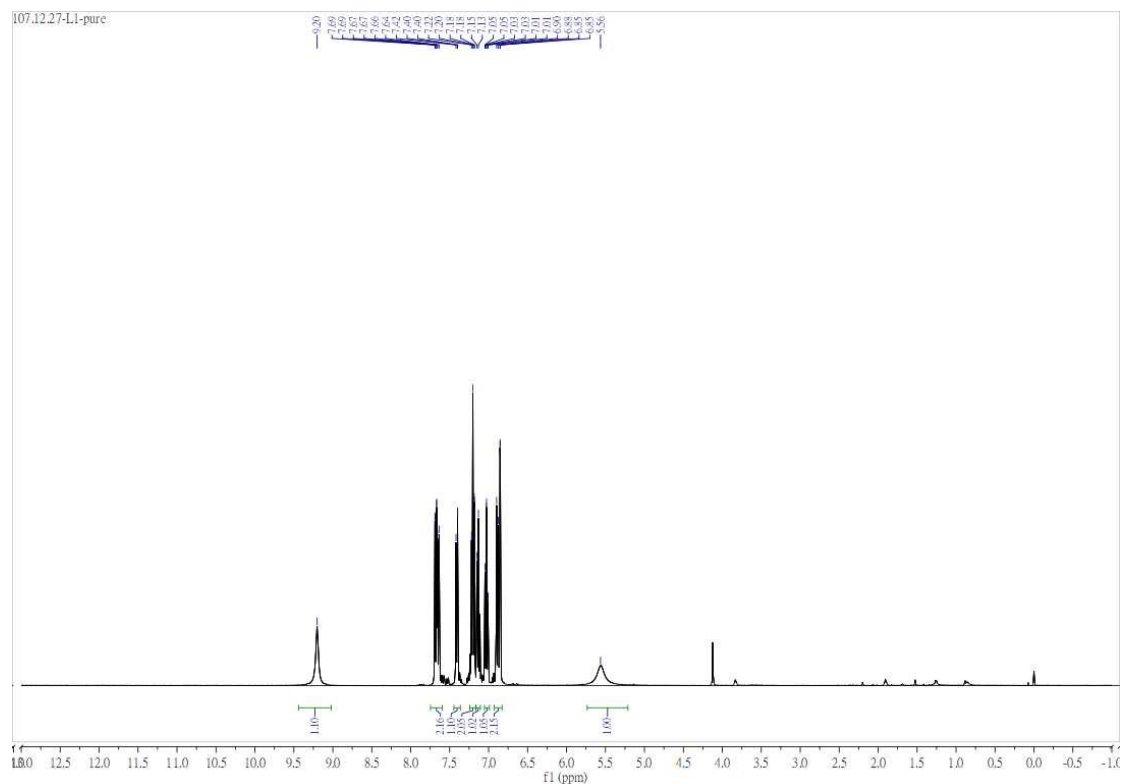


Figure S4. ^1H NMR of IndPh^HOH (L¹H)

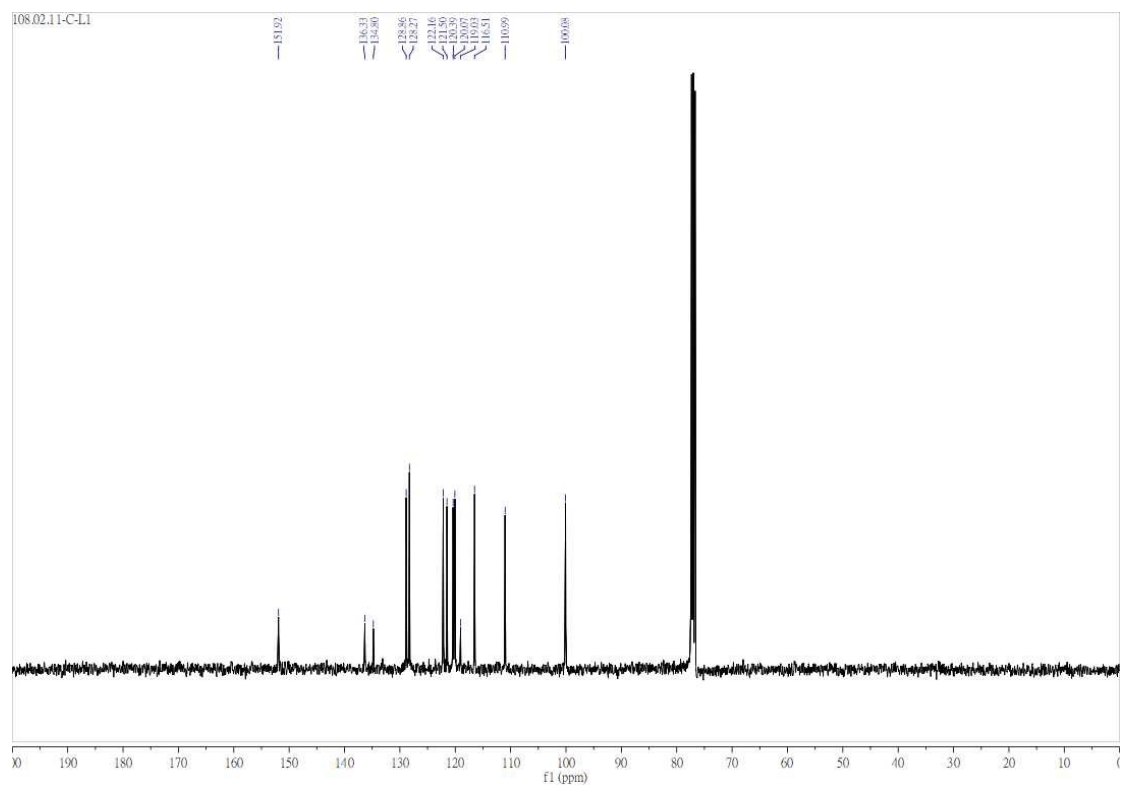


Figure S5. ^{13}C NMR of IndPh^HOH (L¹H)

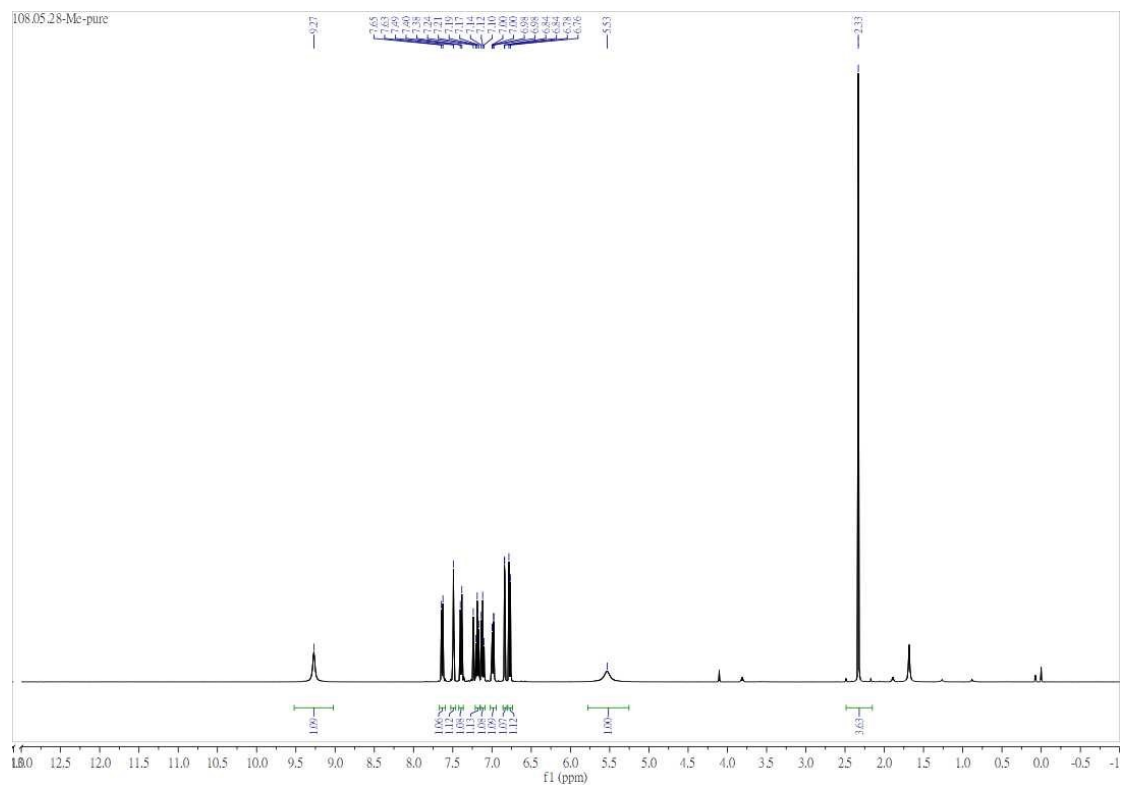


Figure S6. ^1H NMR of IndPh^{Me}OH (L^2H)

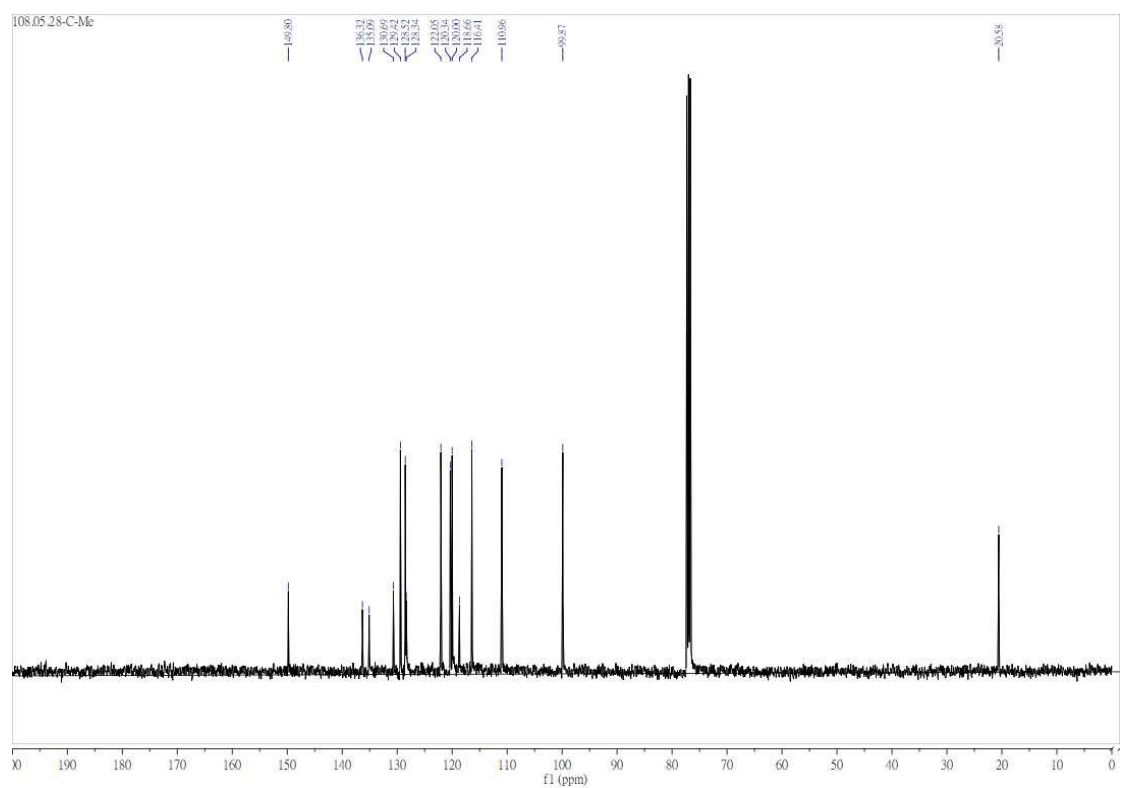


Figure S7. ^{13}C NMR of IndPh^{Me}OH (L^2H)

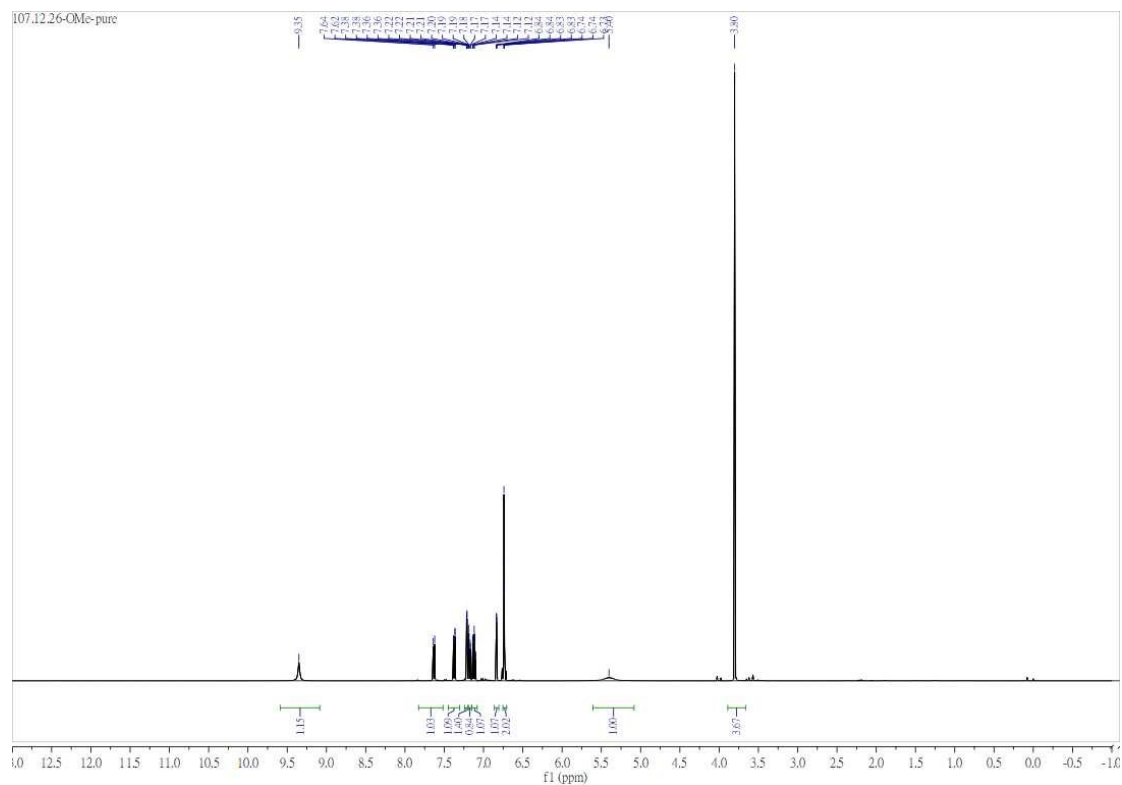


Figure S8. ^1H NMR of $\text{IndPh}^{\text{OMe}}\text{OH}$ (L^3H)

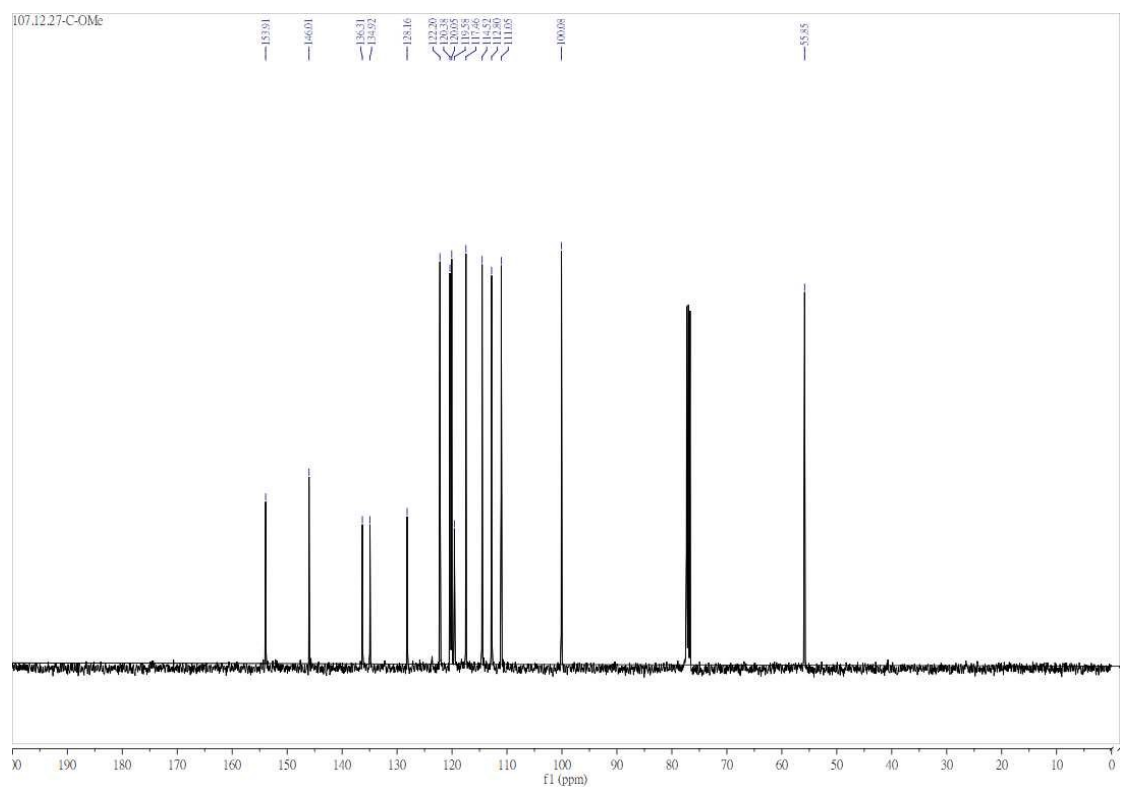


Figure S9. ^{13}C NMR of $\text{IndPh}^{\text{OMe}}\text{OH}$ (L^3H)

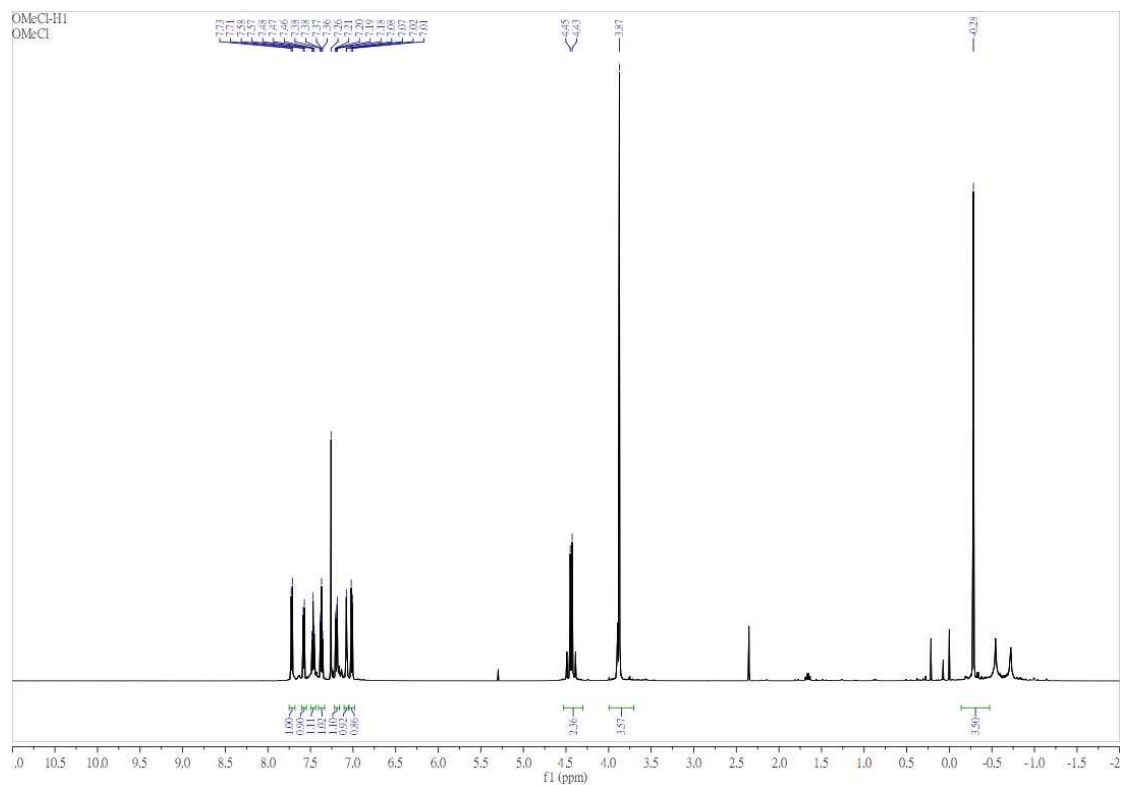


Figure S16. ^1H NMR of $[\text{IndHPh}^{\text{OMeO}}]\text{Al}(\text{CH}_3)\text{Cl}$ (**3**)

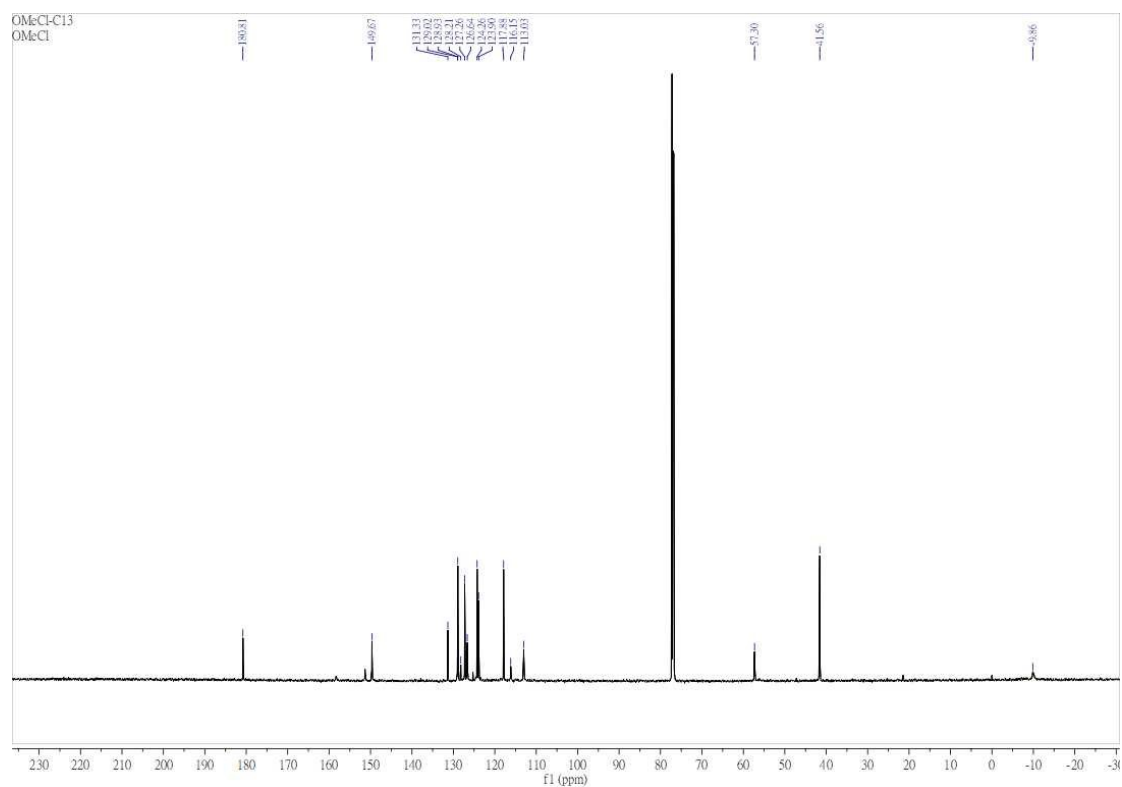
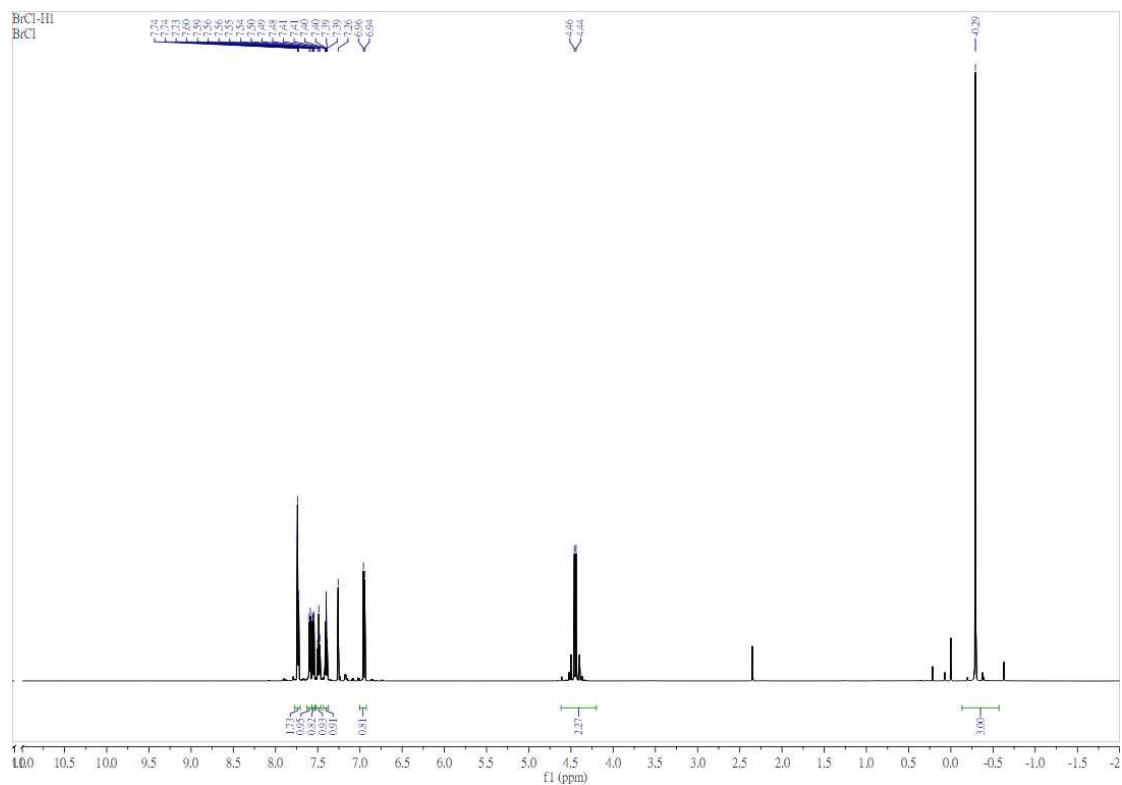


Figure S17. ^{13}C NMR of $[\text{IndHPh}^{\text{OMeO}}]\text{Al}(\text{CH}_3)\text{Cl}$ (**3**)



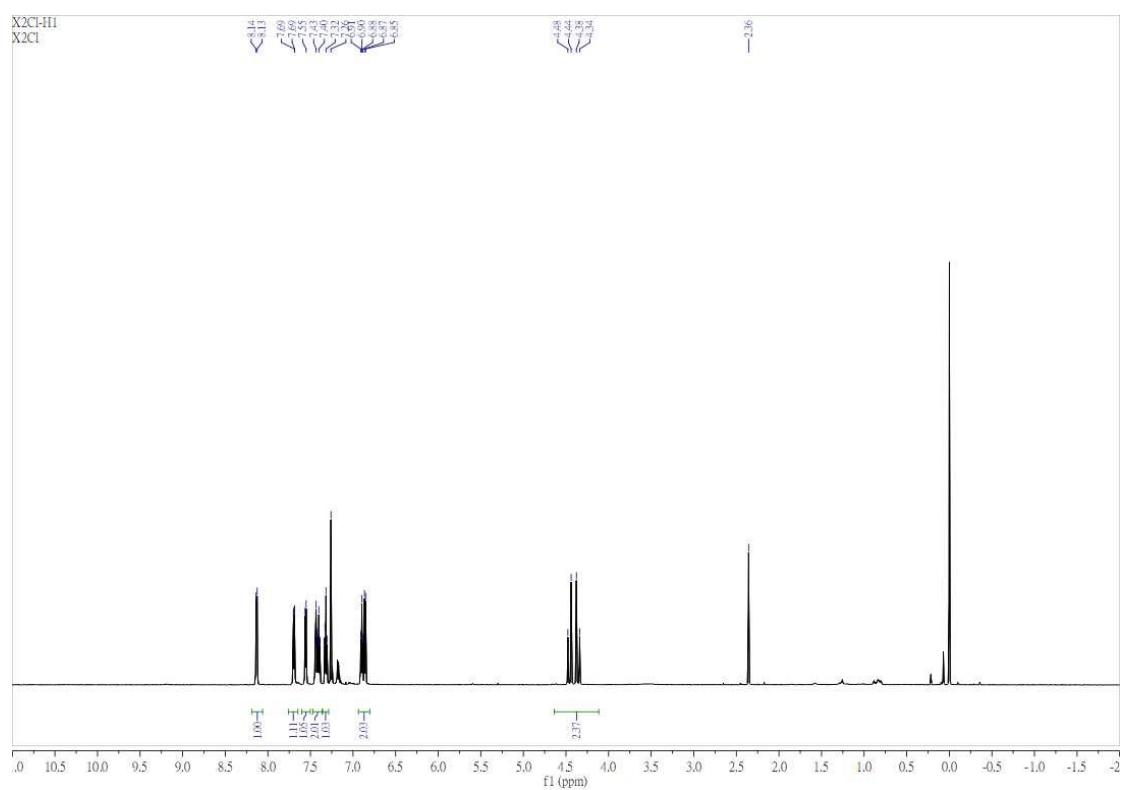


Figure S20. ¹H NMR of [IndHPh^HO]₂AlCl (5)

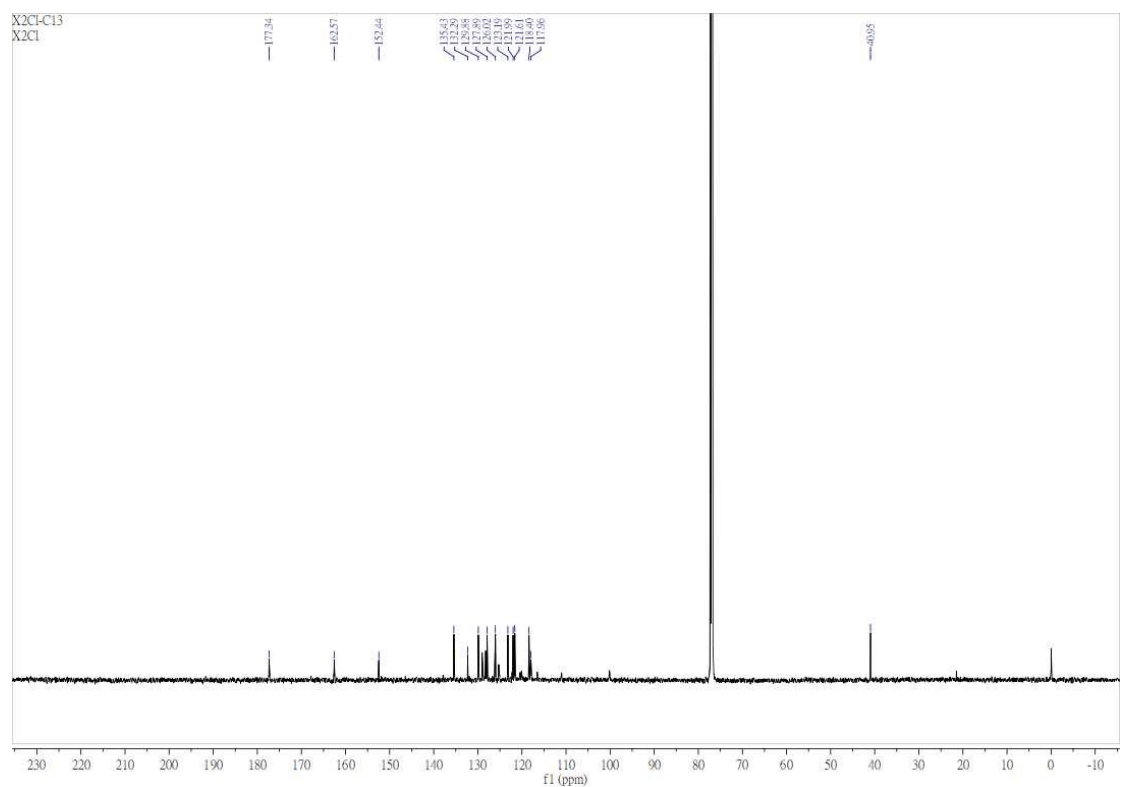


Figure S21. ¹³C NMR of [IndHPh^HO]₂AlCl (5)

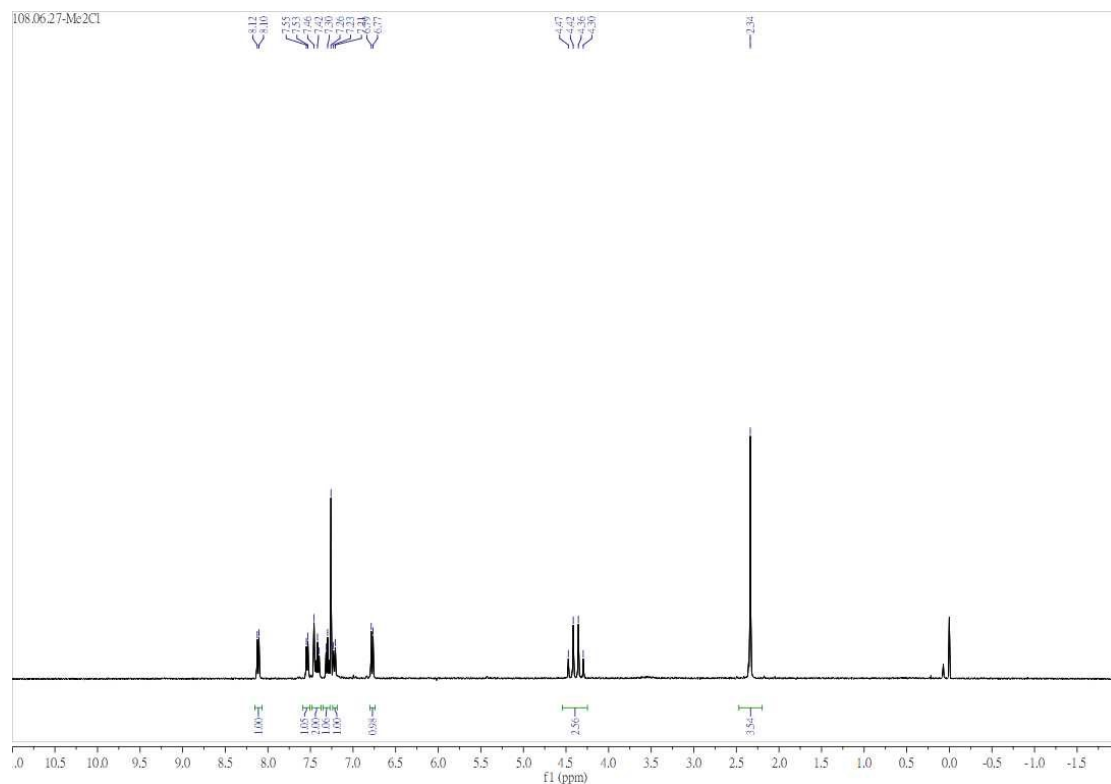


Figure S22. ¹H NMR of [IndHPh^{Me}O]₂AlCl (6)

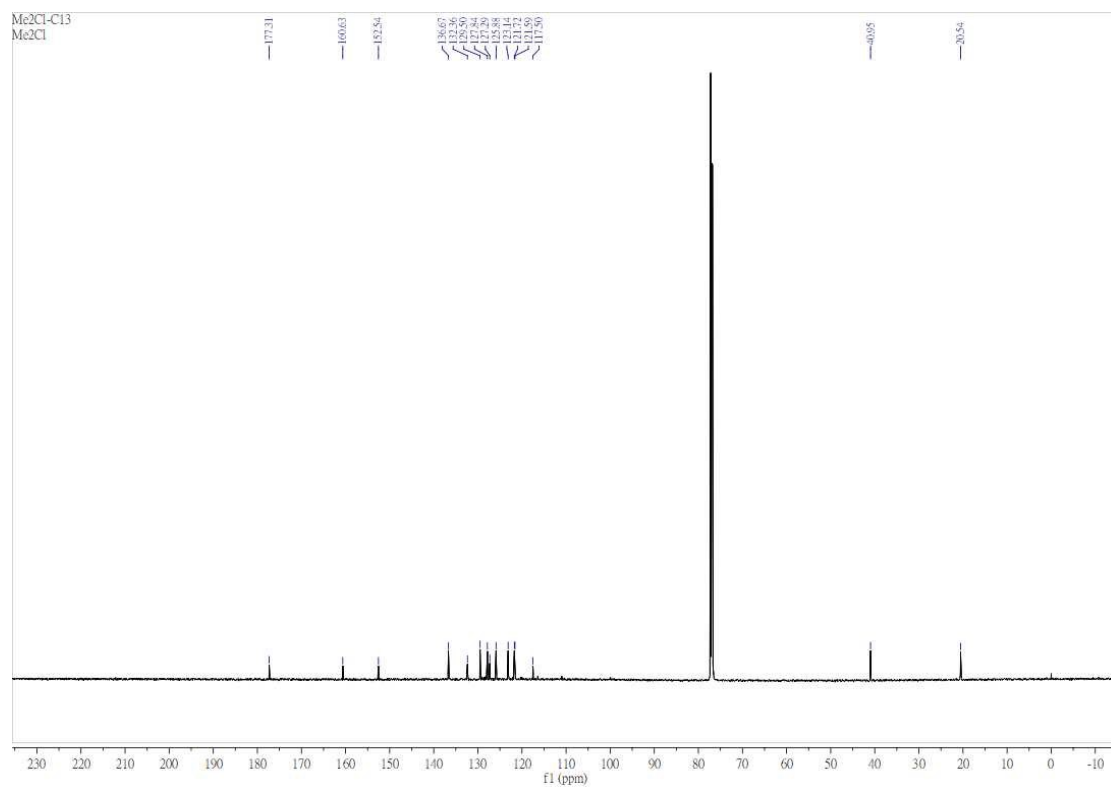


Figure S23. ¹³C NMR of [IndHPh^{Me}O]₂AlCl (6)

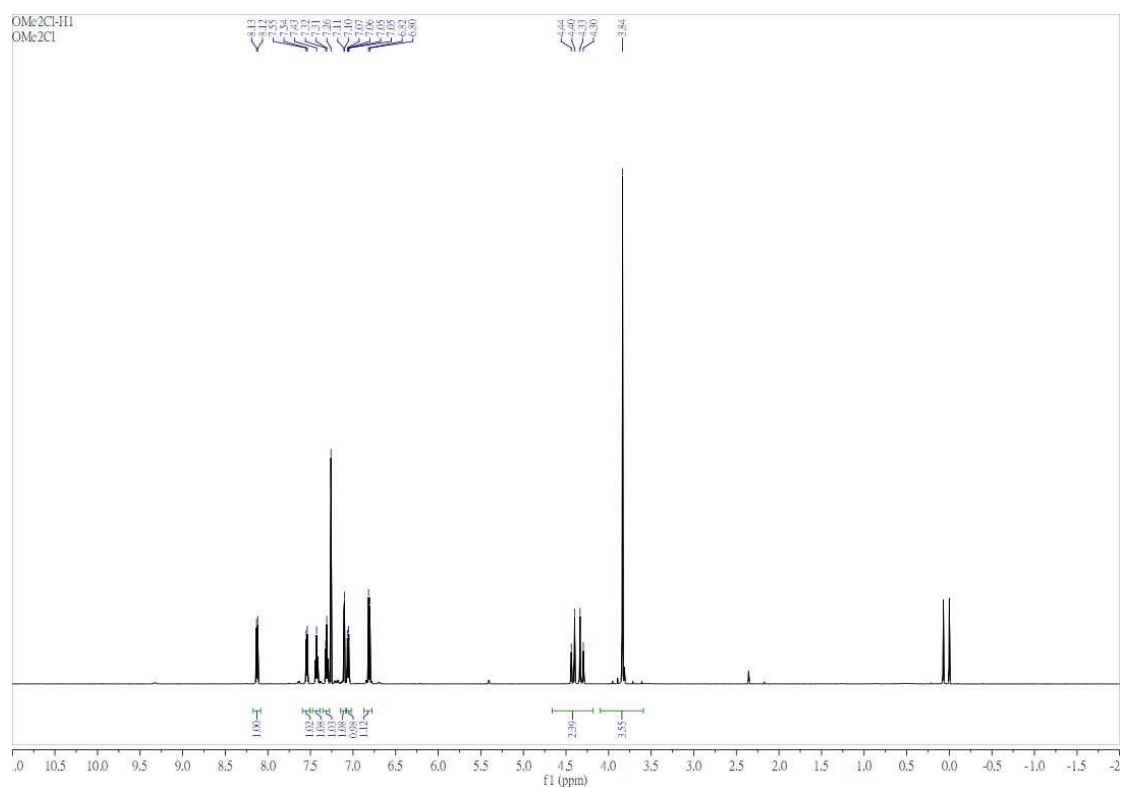


Figure S24. ^1H NMR of $[\text{IndHPh}^{\text{OMeO}}]_2\text{AlCl}$ (7)

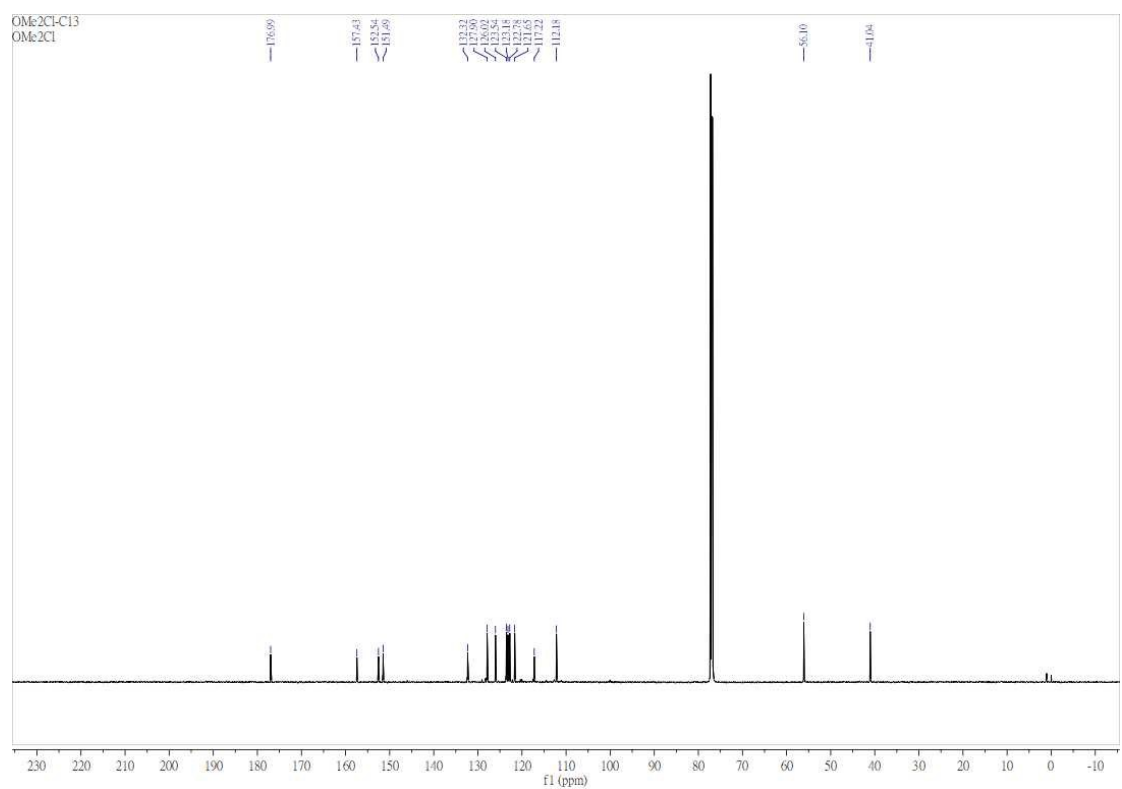


Figure S25. ^{13}C NMR of $[\text{IndHPh}^{\text{OMeO}}]_2\text{AlCl}$ (7)

