Supporting Information

for

Synthesis and characterization of Methylaluminium containing 8-Quinolinolatos and their Ring–opening polymerization of ε-Caprolactone

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Single crystals of **12** suitable for X-ray structural analysis were obtained from chilled toluene/*n*-heptane or dichloromethane/*n*-heptane solutions. With graphite-mnochromated Mo Kα radiation (λ = 0.71073 Å), cell parameters were obtained by global refinement of the positions of all collected reflections. Intensities were corrected for Lorentz and polarization effects and empirical absorption. The structure was solved by direct methods and refined by full-matrix least squares on F^2. All hydrogen atoms were placed in calculated positions. Structure solution and refinement were performed by using the SHELXL-97 package.[1] Details of the X-ray structure determination and refinement are provided in Table S1 and its molecular structure is shown in Fig. S1. Due to relative poor quality of the single crystal, the R value is high. CCDC No.783405 for crystallographic data of complex **12**. See http://www.ccdc.cam.ac.uk/deposit.

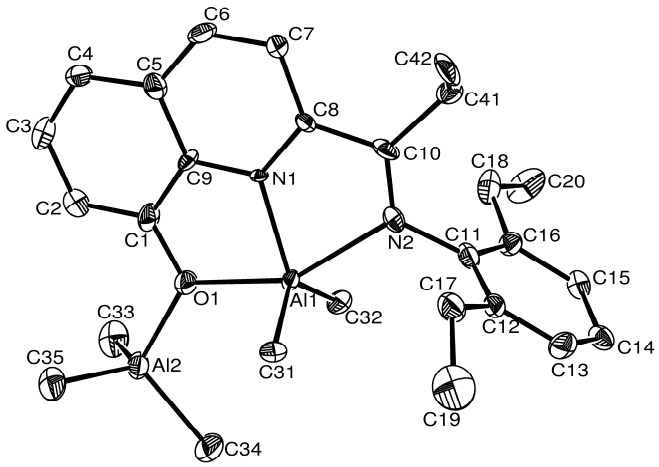

Figure S1. ORTEP drawing of **12** with thermal ellipsoids drawn at the 30% probability level. Hydrogen atoms are omitted for clarity.

Table S1. Crystal Data and Refinement Details for **12**

Empirical formula	$C_{27}H_{38}N_2Al_2O$
Formula weight	460.55
Crystal color	Yellow
Temperature (K)	173(2)
Wavelength (Å)	0.71073
Crystal system	Monoclinic
space group	C2/c
a (Å)	29.760(16)
b (Å)	12.705(7)
c (Å)	16.265(9)
α (°)	90.0
β (°)	104.669(7)
γ (°)	90.0
Volume (Å^3)	5949(6)
Z	8
Dcalc(Mg m^{-3})	1.028
μ (mm^{-1})	0.116
F(000)	1984
Crystal size (mm)	0.19×0.10×0.09
θ range (°)	2.59 – 25.00
Limiting indices	– 35 ≤ h ≤ 33 – 15 ≤ k ≤ 15 – 15 ≤ l ≤ 19
No. of rflns collected	19739
No. of unique rflns	5236
Rint	0.1695
Completeness to θ (%)	99.8 (θ = 25.00)
Goodness-of-fit on F^2	1.383
Final R indices [I>2σ (I)]	R1 = 0.2014 wR2 = 0.4507
R indices (all data)	R1 = 0.2734 wR2 = 0.4917
Largest diff peak, hole (e Å^{-3})	0.593, – 0.673

Reference: G. M. Sheldrick, *SHELXL–97, Program for the Refinement of Crystal Structure*, University of Göttingen, Göttingen, Germany, 1997