

Electronic Supplementary Information for

**Syntheses of bis(pyrrolylaldiminato)aluminium Complexes for the
Polymerisation of Lactide**

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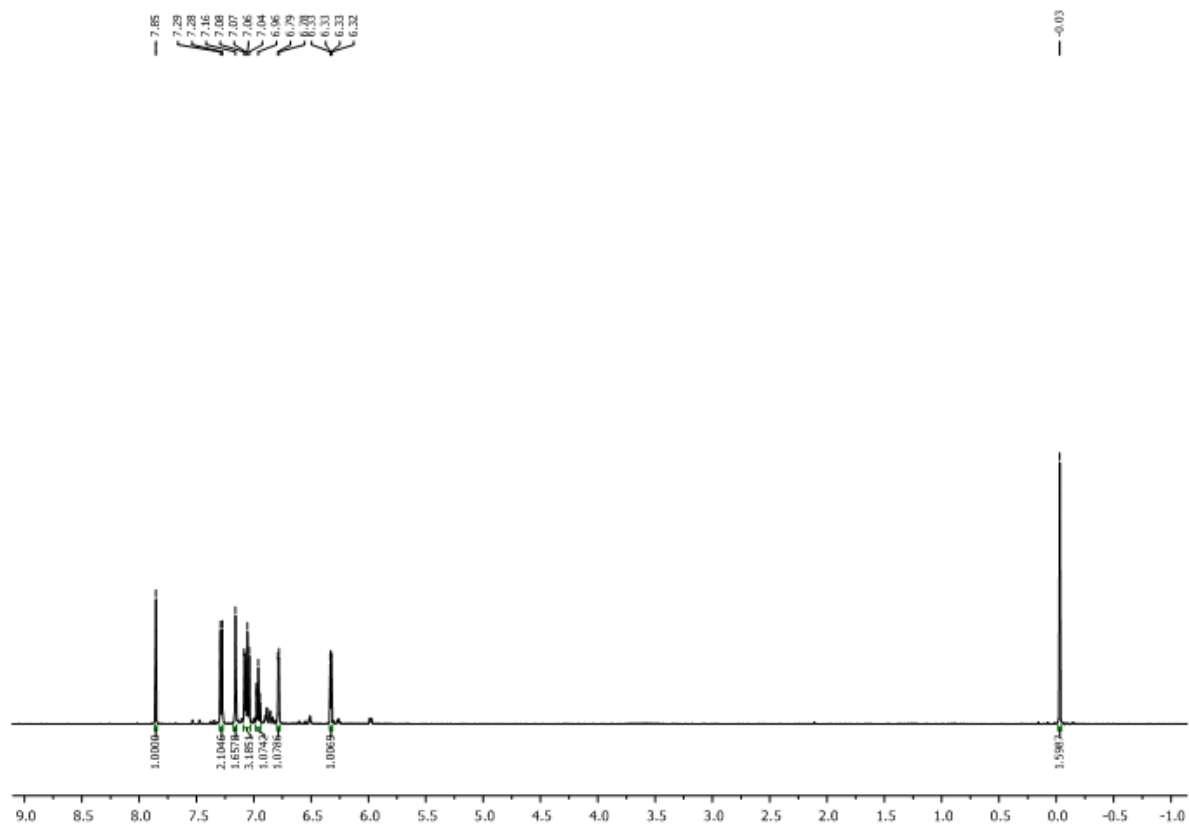


Figure S1 ^1H NMR (300MHz, C_6D_6) spectra of $[2-(\text{C}_6\text{H}_5\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **1**.

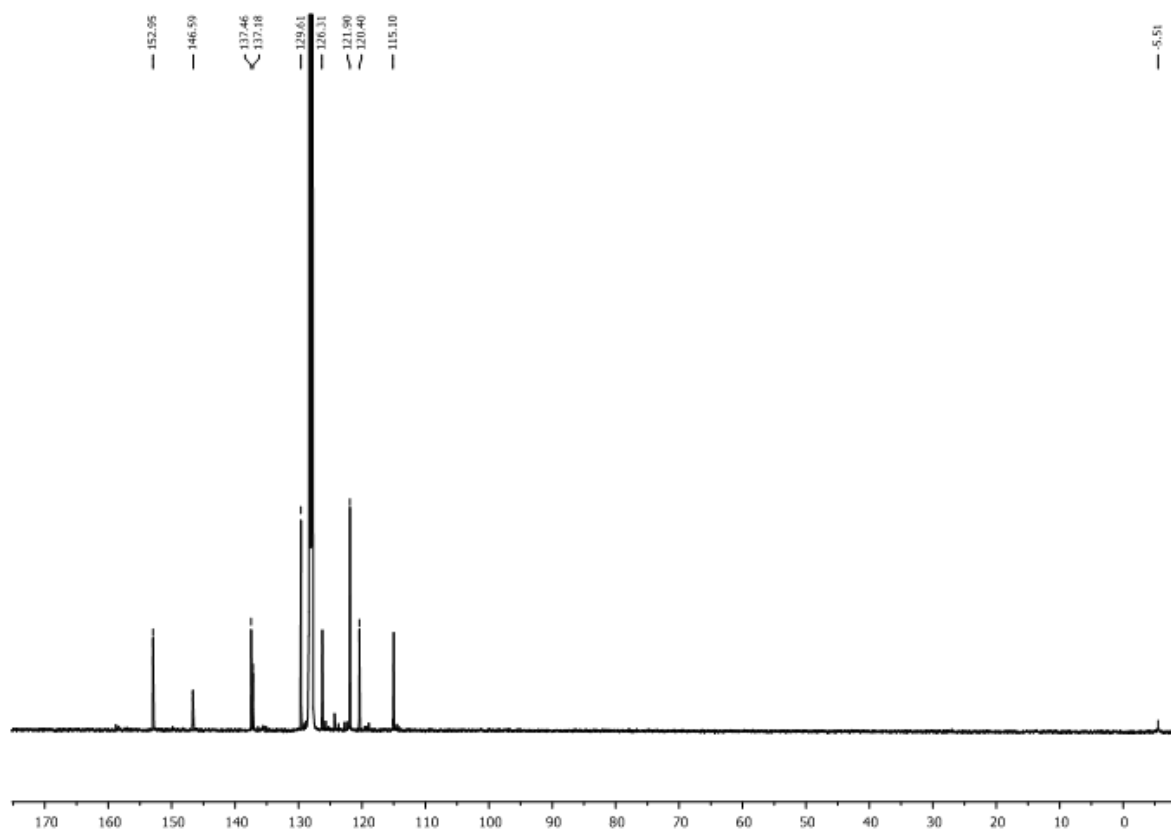


Figure S2 ^{13}C NMR (125 MHz, C_6D_6) spectra of $[2-(\text{C}_6\text{H}_5\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **1**.

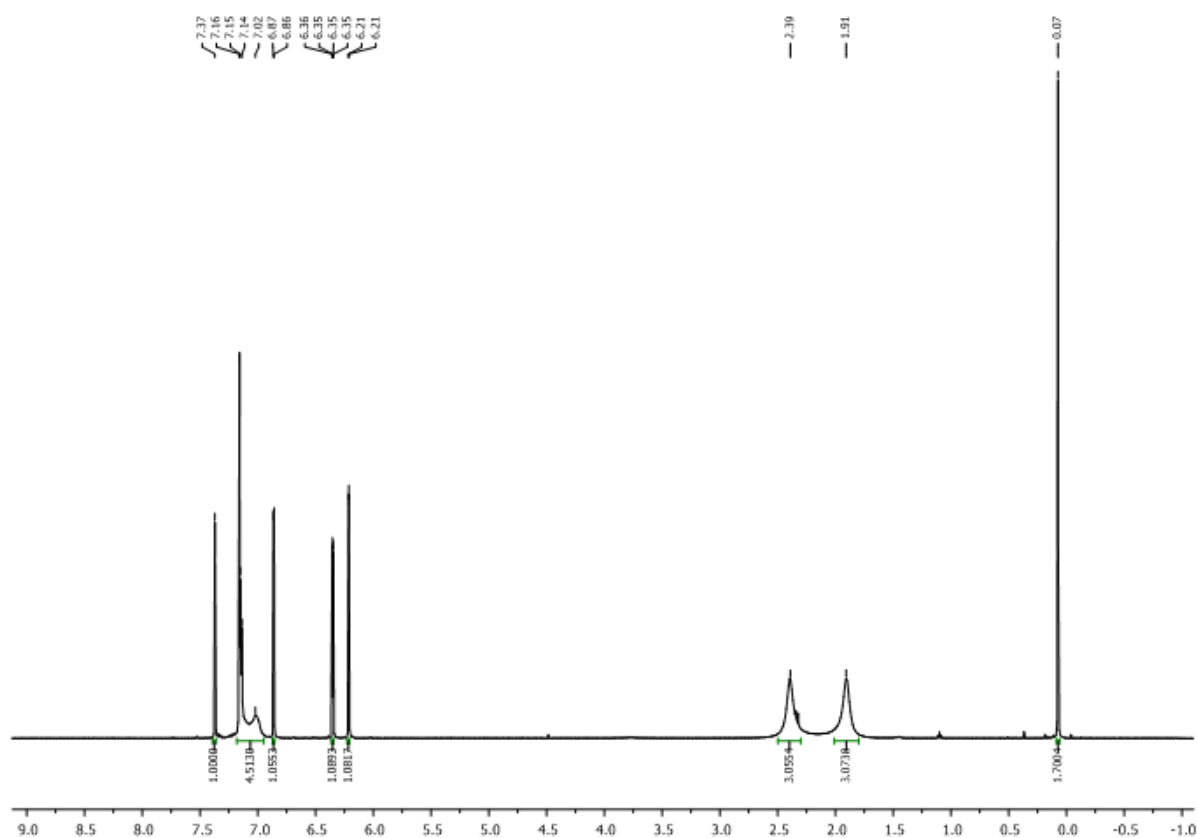


Figure S3 ^1H NMR (300MHz, C_6D_6) spectra of $[2-(2,6-(\text{CH}_3)_2\text{C}_6\text{H}_3\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **2**.

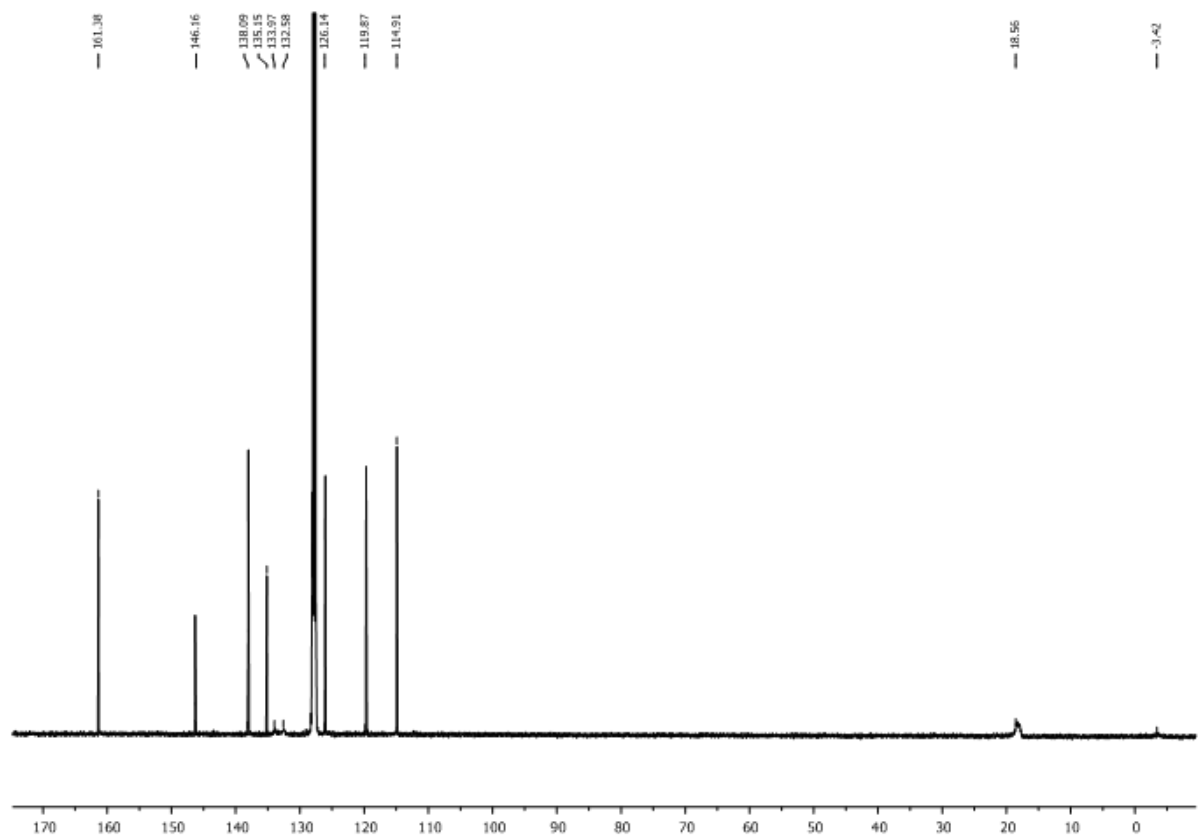


Figure S4 ^{13}C NMR (125 MHz, C_6D_6) spectra of $[2-(2,6-(\text{CH}_3)_2\text{C}_6\text{H}_3\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **2**.

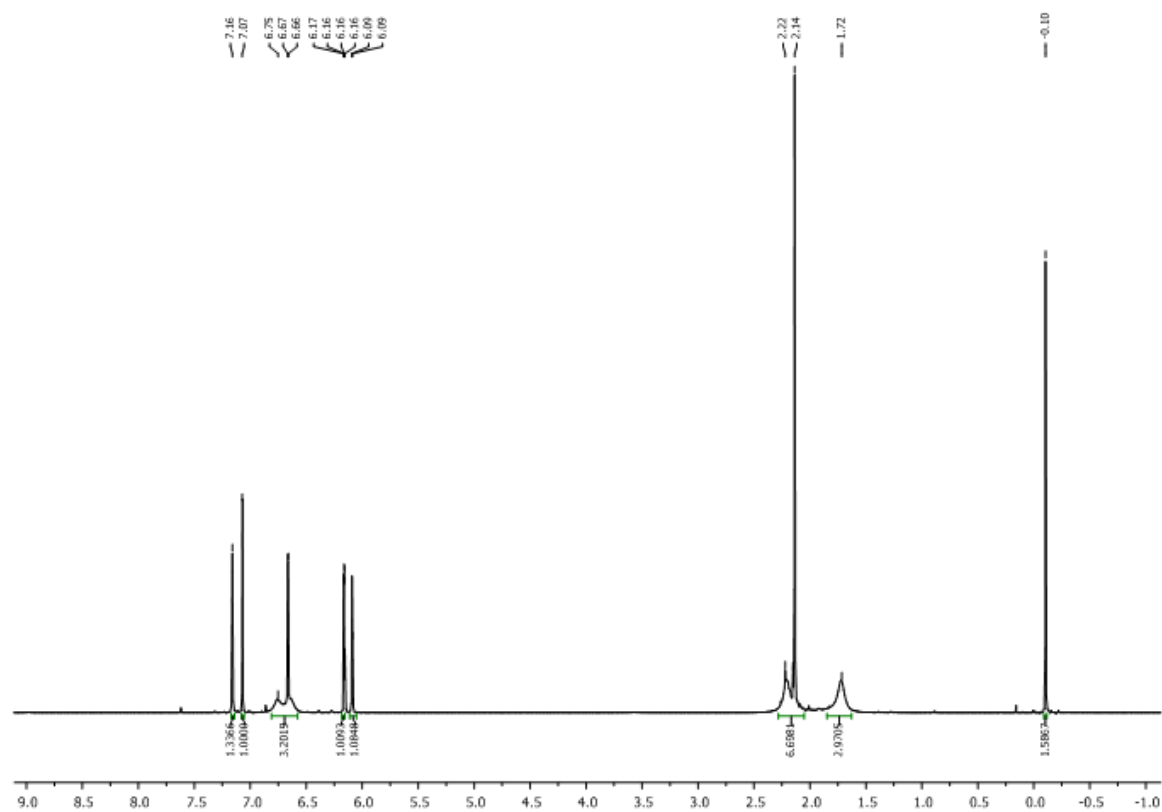


Figure S5 ¹H NMR (300MHz, C₆D₆) spectra of [2-(2,4,6-(CH₃)₃C₆H₂N=CH)C₄H₃N]₂AlCH₃, **3**.

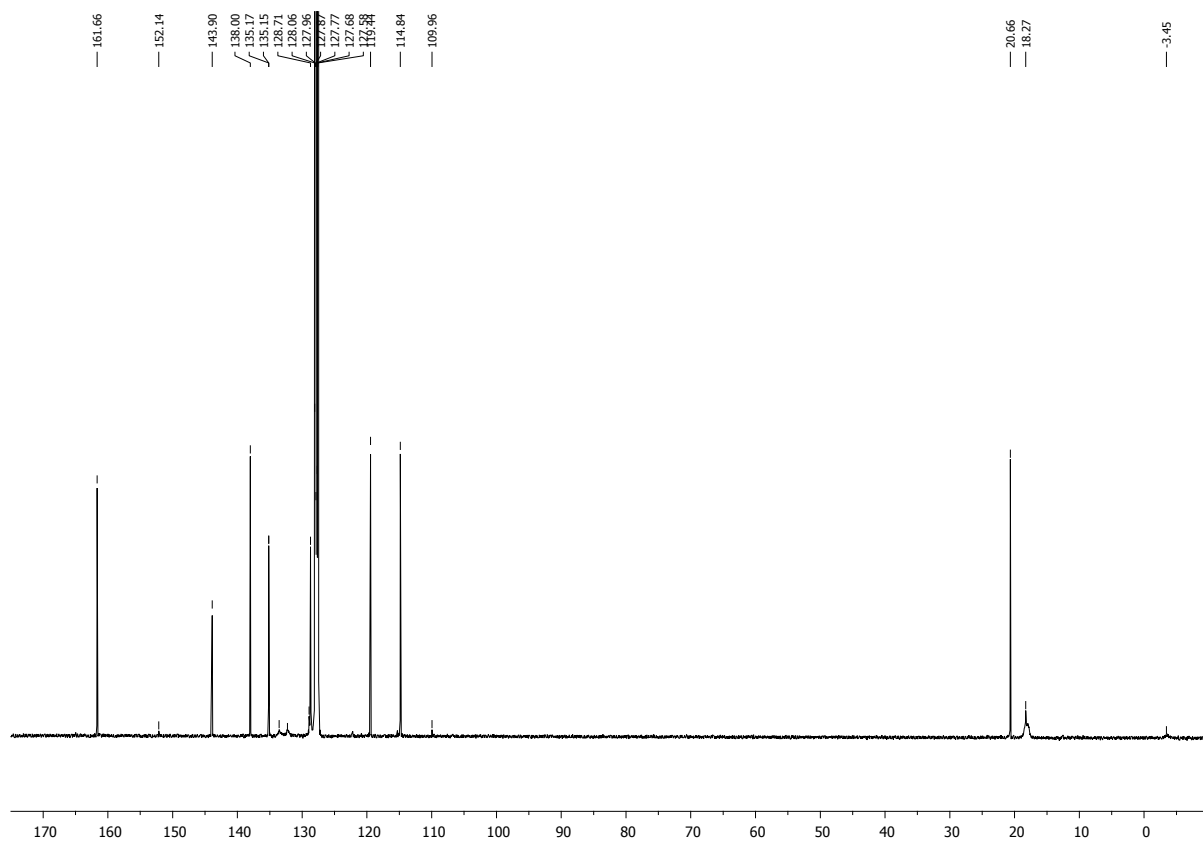


Figure S6 ^{13}C NMR (125 MHz, C_6D_6) spectra of [2-(2,4,6-(CH_3) $_3\text{C}_6\text{H}_2\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3, **3**.$

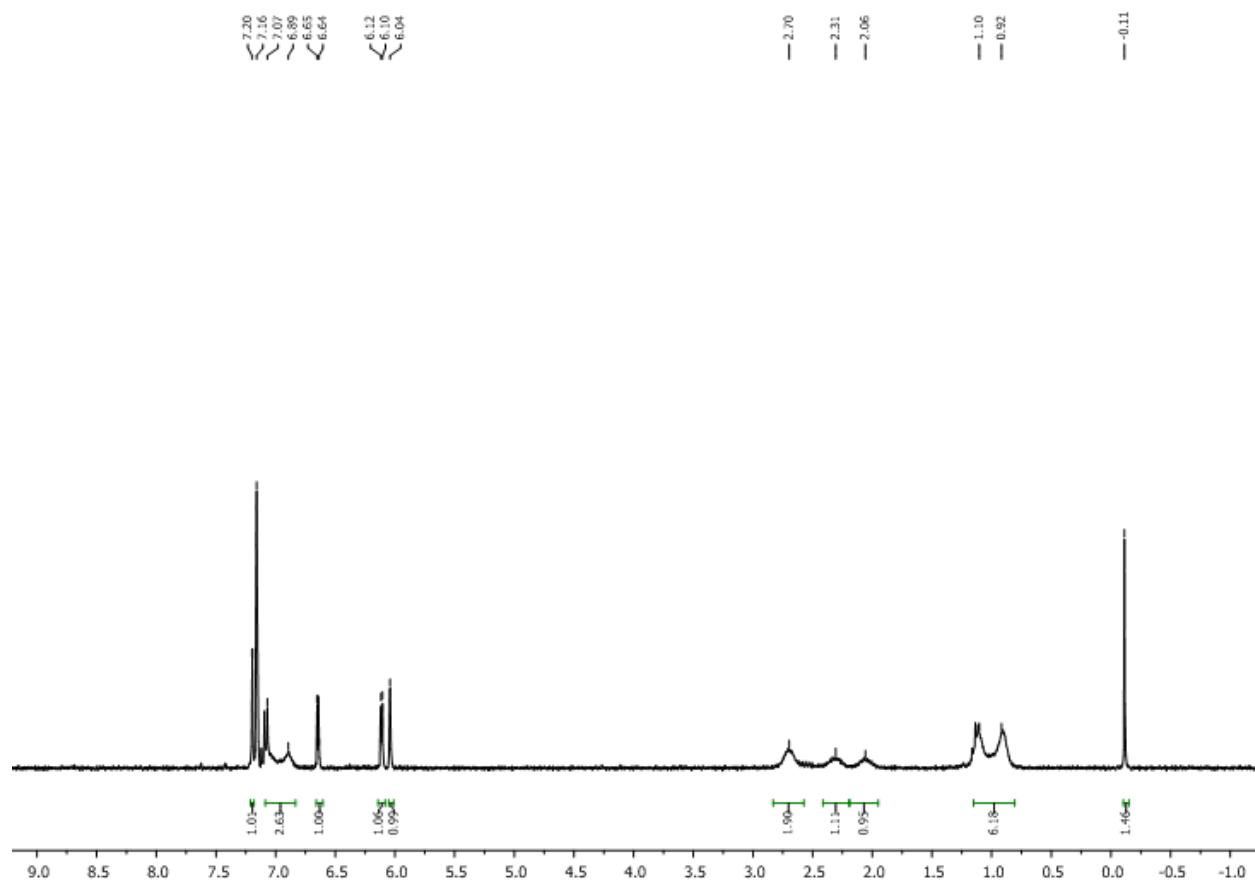


Figure S7 ^1H NMR (300MHz, C_6D_6) spectra of [2-(2,6-(C_2H_5) $_2\text{C}_6\text{H}_3\text{N}=\text{CH}$) $\text{C}_4\text{H}_3\text{N}$] $_2\text{AlCH}_3$, **4**.

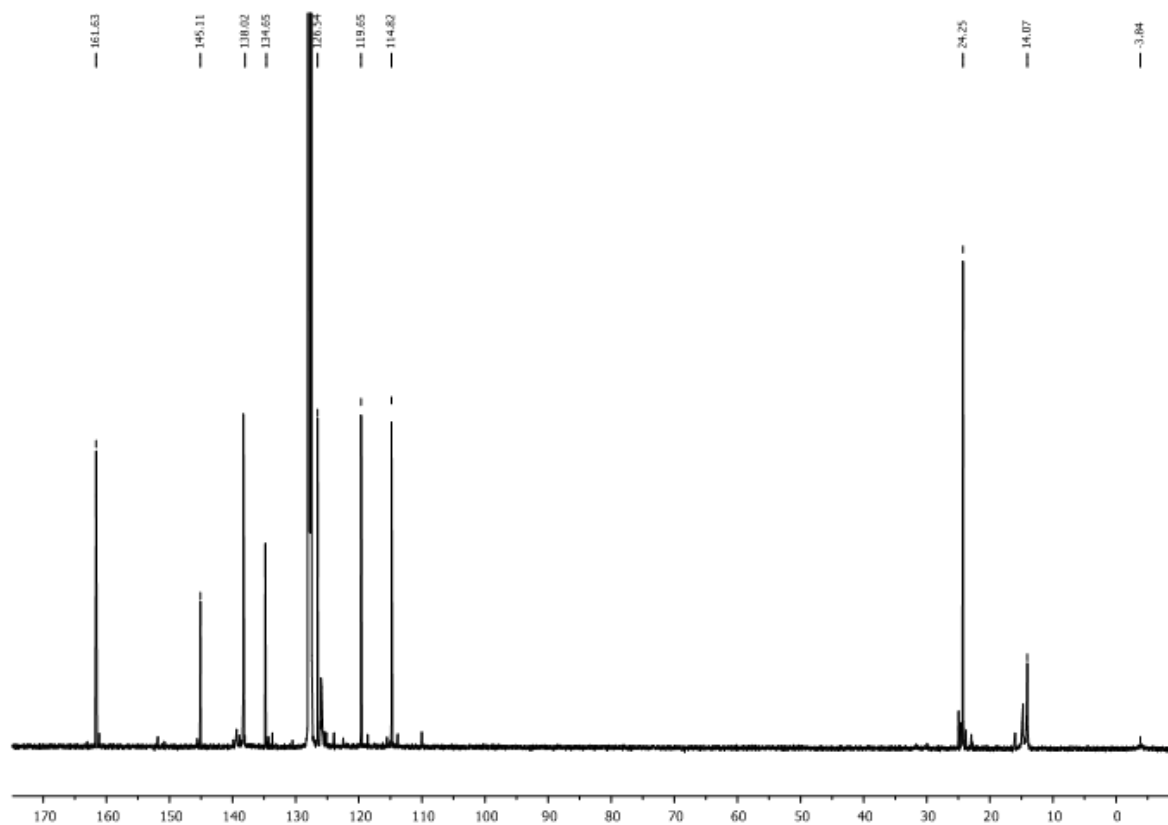


Figure S8 ^{13}C NMR (125 MHz, C_6D_6) spectra of $[2-(2,6-(\text{C}_2\text{H}_5)_2\text{C}_6\text{H}_3\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **4**.

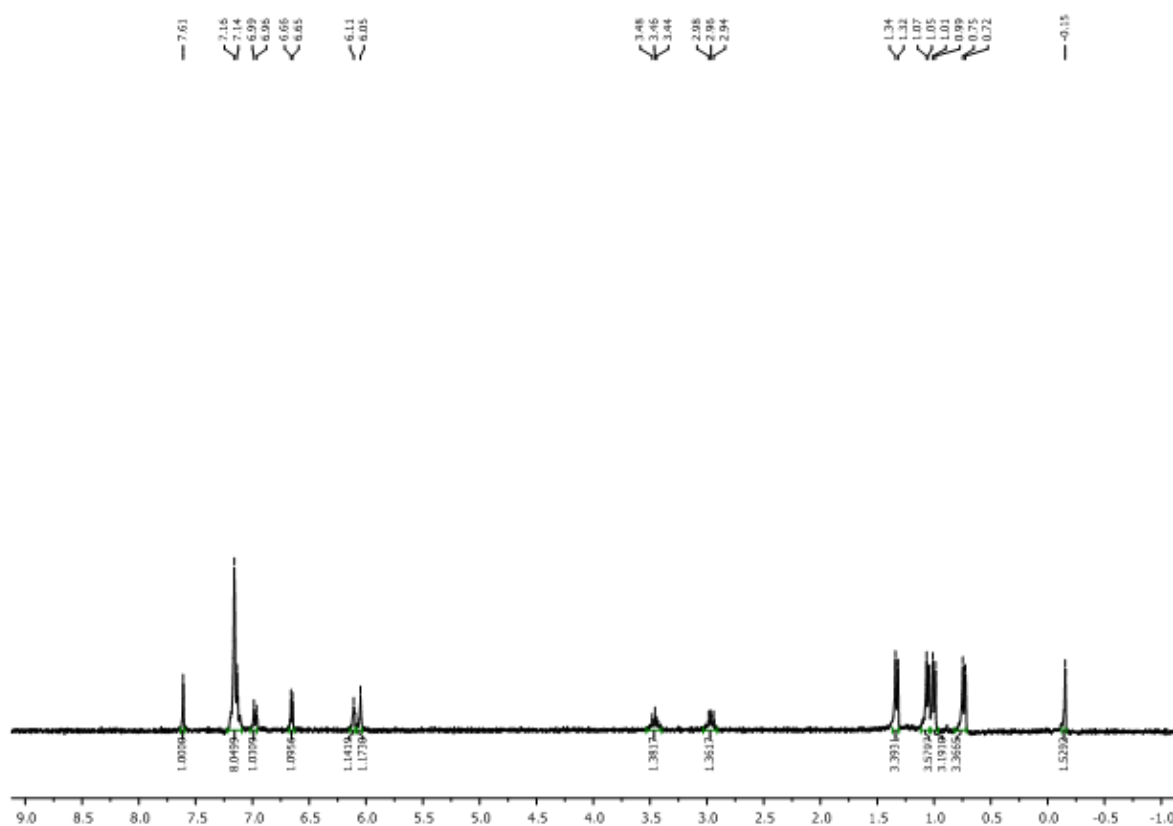


Figure S9 ^1H NMR (300MHz, C_6D_6) spectra of $[2-(2,6-(i\text{Pr})_2\text{C}_6\text{H}_3\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **5**.

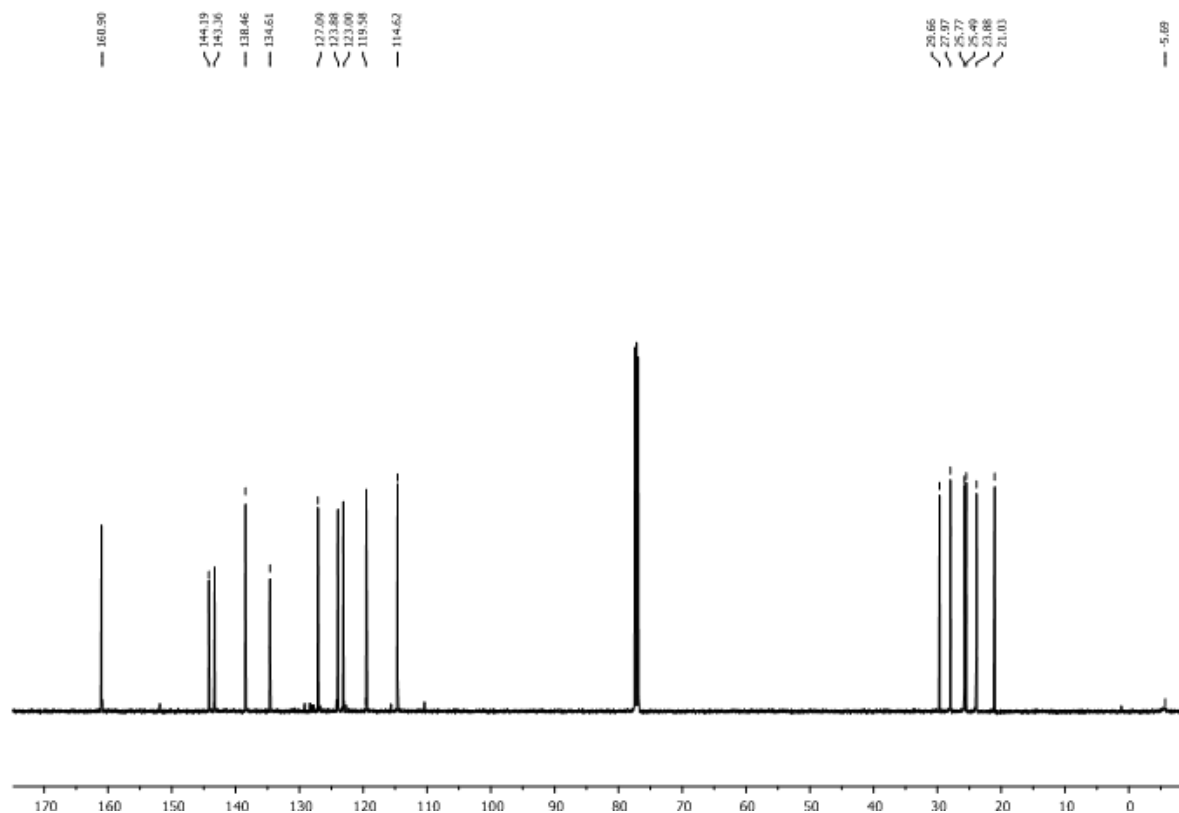


Figure S10 ^{13}C NMR (125 MHz, C_6D_6) spectra of $[2-(2,6-(^i\text{Pr})_2\text{C}_6\text{H}_3\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **5**.

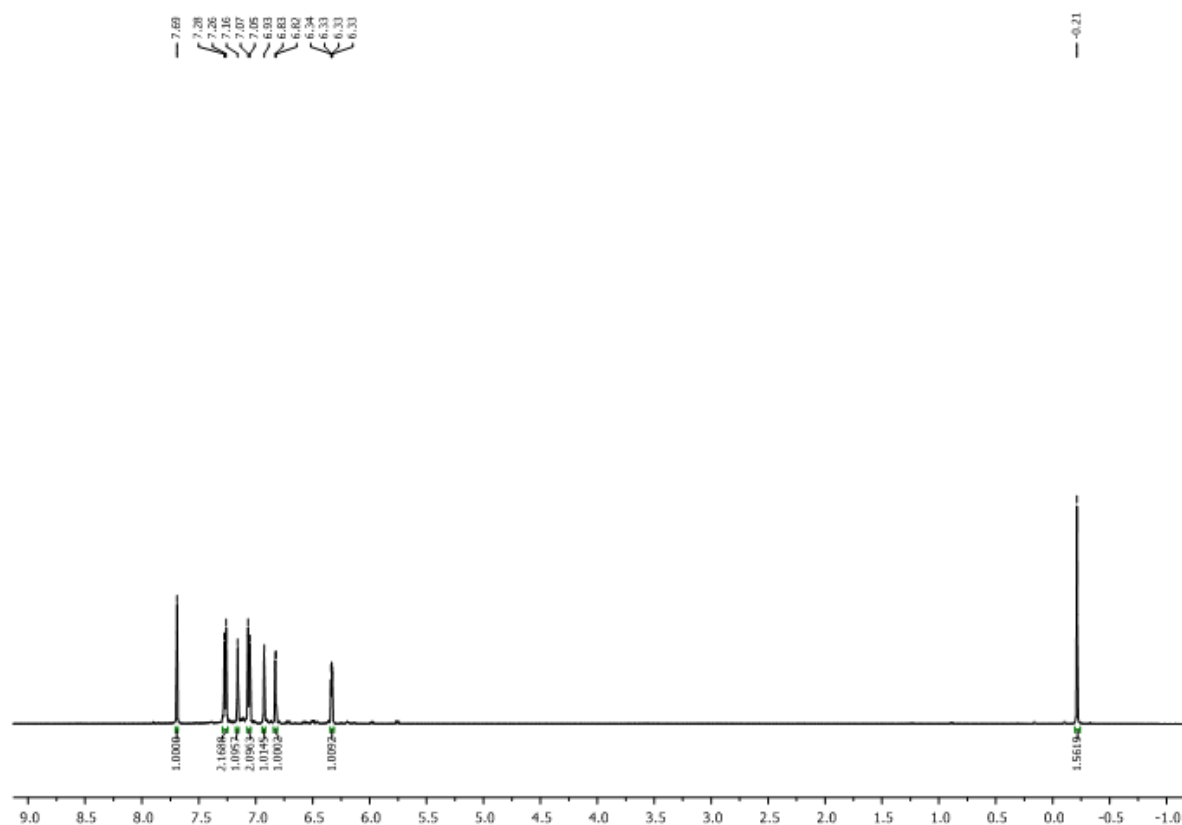


Figure S11 ^1H NMR (300MHz, C_6D_6) spectra of $[2-(4-(\text{CF}_3)\text{C}_6\text{H}_4\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **6**.

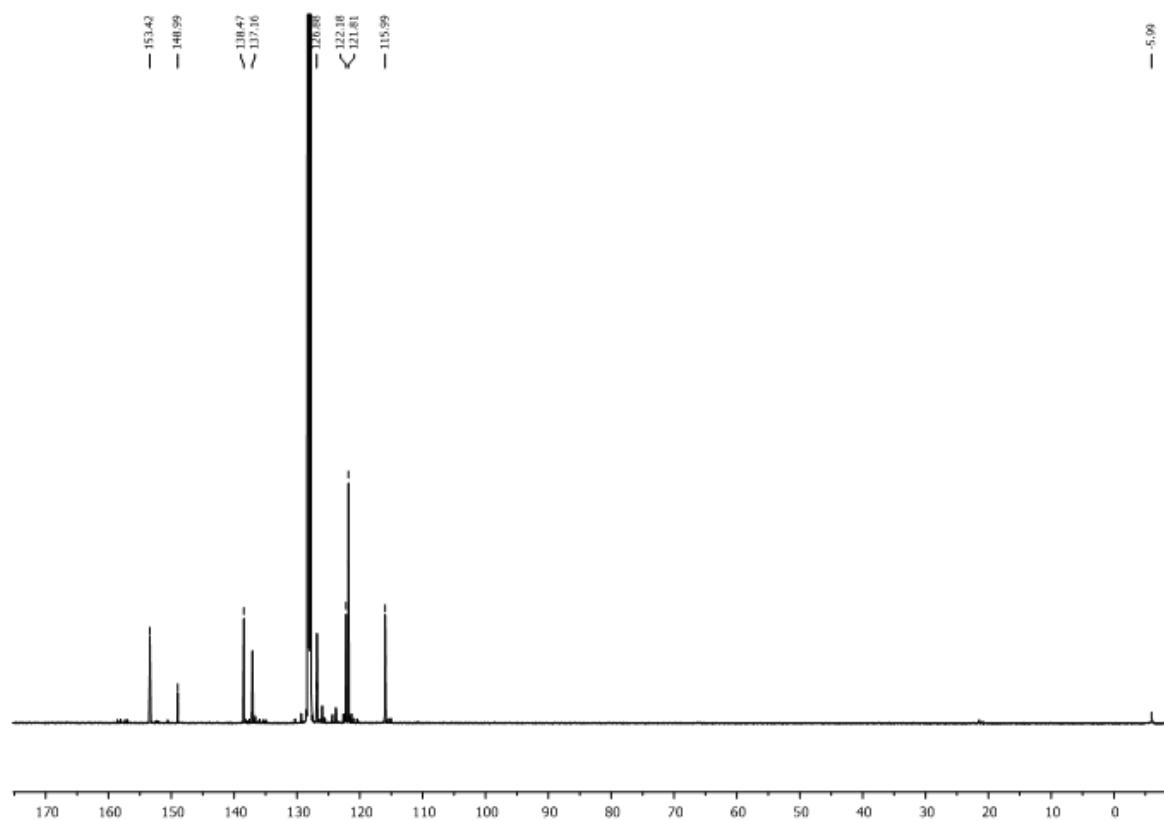


Figure S12 ^{13}C NMR (125 MHz, C_6D_6) spectra of $[2-(4-(\text{CF}_3)\text{C}_6\text{H}_4\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **6**.

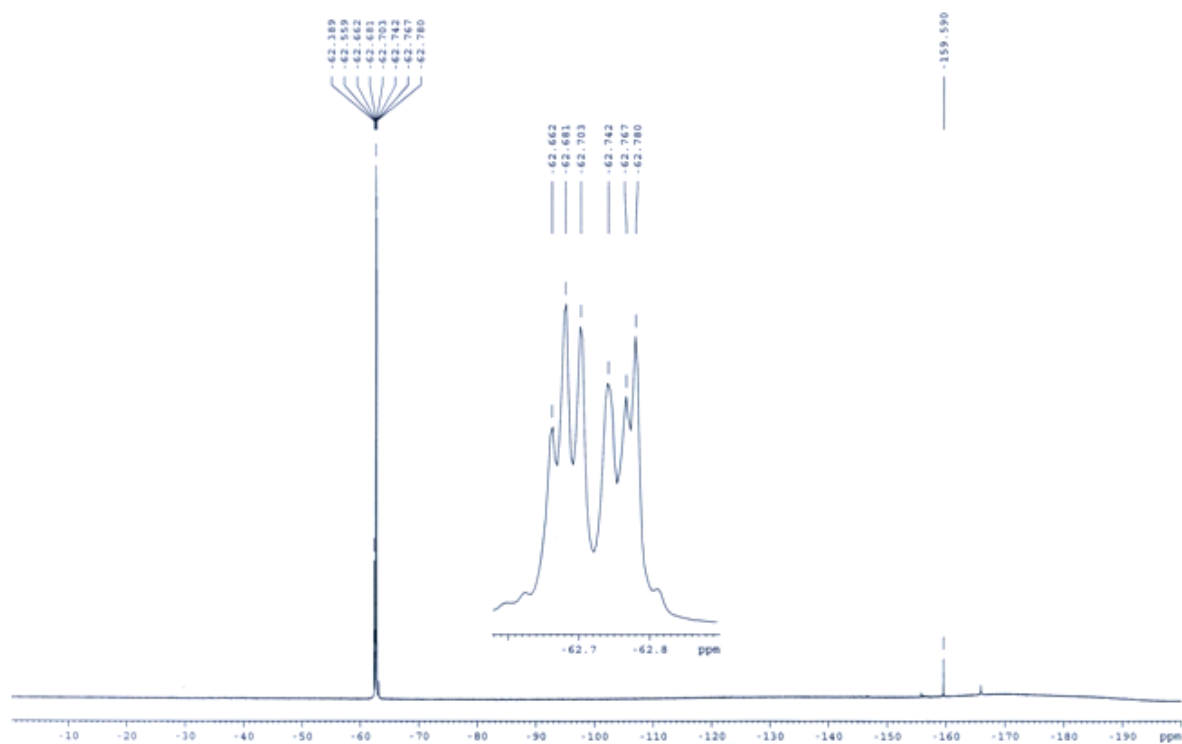


Figure S13 ^{19}F NMR (C_6D_6) spectra of $[2-(4-(\text{CF}_3)\text{C}_6\text{H}_4\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, **6**, referenced to external CF_3COOH .

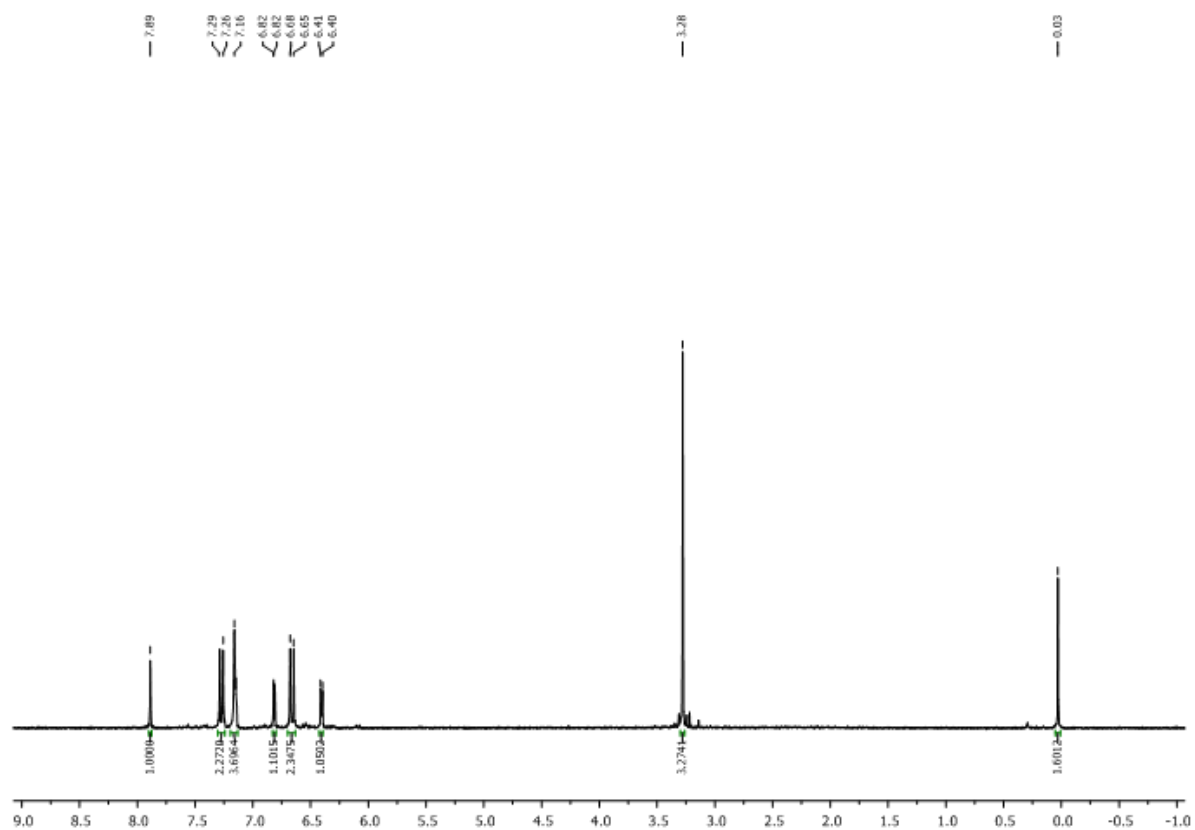


Figure S14 ¹H NMR (300MHz, C₆D₆) spectra of [2-(4-(OCH₃)C₆H₄N=CH)C₄H₃N]₂AlCH₃, **7**.

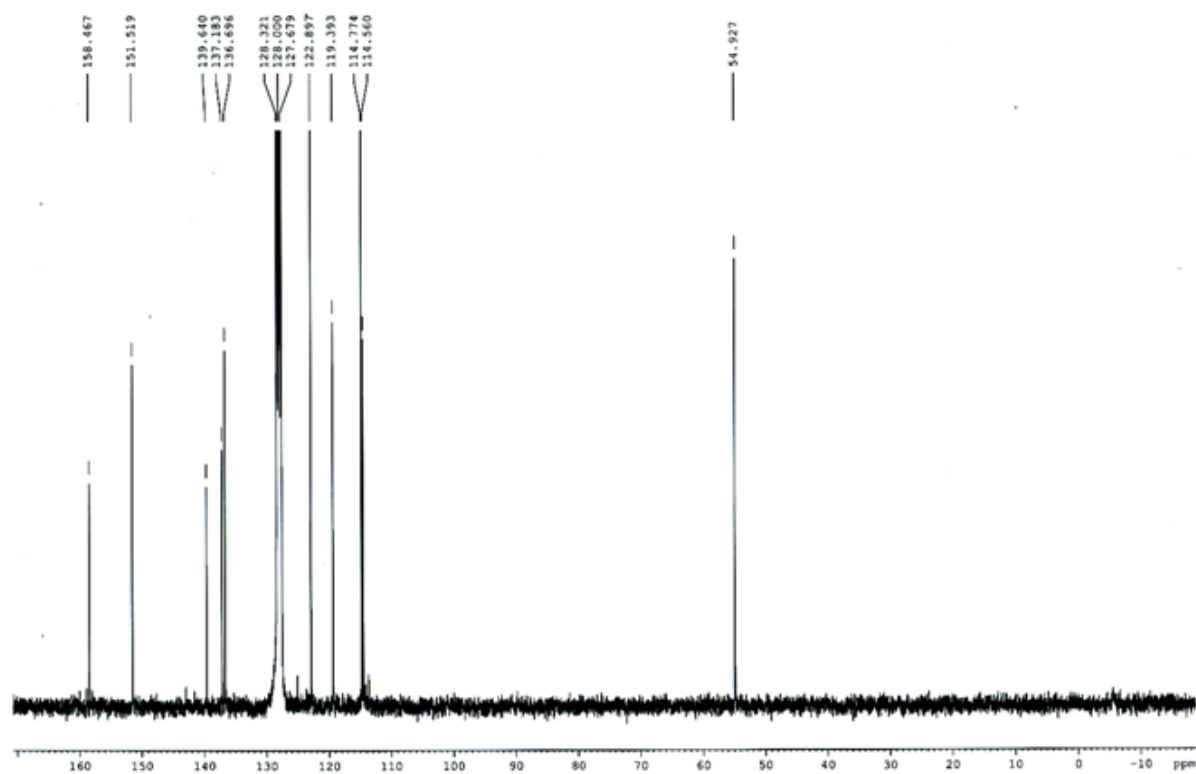


Figure S14 ^{13}C NMR (125 MHz, C_6D_6) spectra of $[2-(4-(\text{OCH}_3)\text{C}_6\text{H}_4\text{N}=\text{CH})\text{C}_4\text{H}_3\text{N}]_2\text{AlCH}_3$, 7.

Mass Spectrum List Report

Analysis Info

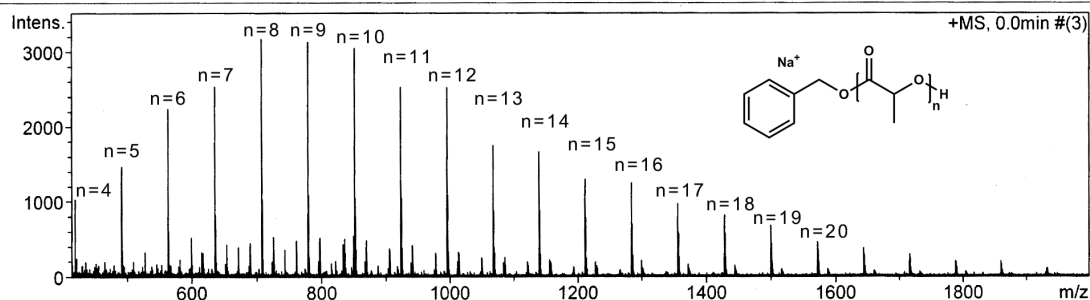
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Method Tune_wide_POS_Natee20130403.m
Sample Name iPr
iPr

Acquisition Date 7/8/2013 3:09:13 PM
Operator Administrator
Instrument micrOTOF 72

Acquisition Parameter

Source Type ESI
Scan Range n/a
Scan Begin 50 m/z
Scan End 3000 m/z
Ion Polarity Positive
Capillary Exit 150.0 V
Hexapole RF 300.0 V
Skimmer 1 45.0 V
Hexapole 1 24.3 V

Set Corrector Fill 33 V
Set Pulsar Pull 386 V
Set Pulsar Push 368 V
Set Reflector 1300 V
Set Flight Tube 9000 V
Set Detector TOF 2450 V



#	m/z	I	I %	S/N	FWHM	Res.
1	419.1345	1016	32.3	68.7	0.0795	5269
2	491.1545	1450	46.0	98.5	0.0909	5404
3	563.1732	2217	70.4	150.8	0.1045	5390
4	635.1941	2520	80.0	170.9	0.1111	5718
5	707.2174	3149	100.0	212.9	0.1142	6195
6	779.2399	3113	98.9	208.7	0.1353	5761
7	851.2566	3030	96.2	200.7	0.1407	6050
8	995.3028	2506	79.6	170.9	0.1672	5953
9	1067.3228	1698	53.9	121.8	0.1948	5479
10	1139.3448	1652	52.5	124.5	0.2035	5598
11	1211.3697	1274	40.4	98.9	0.2289	5291
12	1283.3948	1233	39.2	98.7	0.2190	5861
13	1355.4198	918	29.1	75.0	0.2400	5647
14	1427.4440	764	24.3	62.8	0.2632	5423
15	1499.4463	668	21.2	55.2	0.2496	6008
16	1571.4531	446	14.2	37.3	0.3428	4585
17	1643.4845	364	11.6	30.8	0.2802	5866
18	1715.5240	285	9.1	24.4	0.3470	4944
19	1787.5768	152	4.8	13.3	0.4312	4145
20	1859.5590	153	4.9	13.7	0.2326	7994

Figure S15 ESI mass spectrum of PLA synthesized using $[\text{LA}]:[\text{5}]:[\text{BnOH}] = 10:1:1$.