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Supplementary Material

Syntheses and structural characterisation of some heteroleptic aluminium(III) formamidinates

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SUPPLEMENTARY INFORMATION

Syntheses and structural characterisation of some heteroleptic aluminium(III) formamidinates

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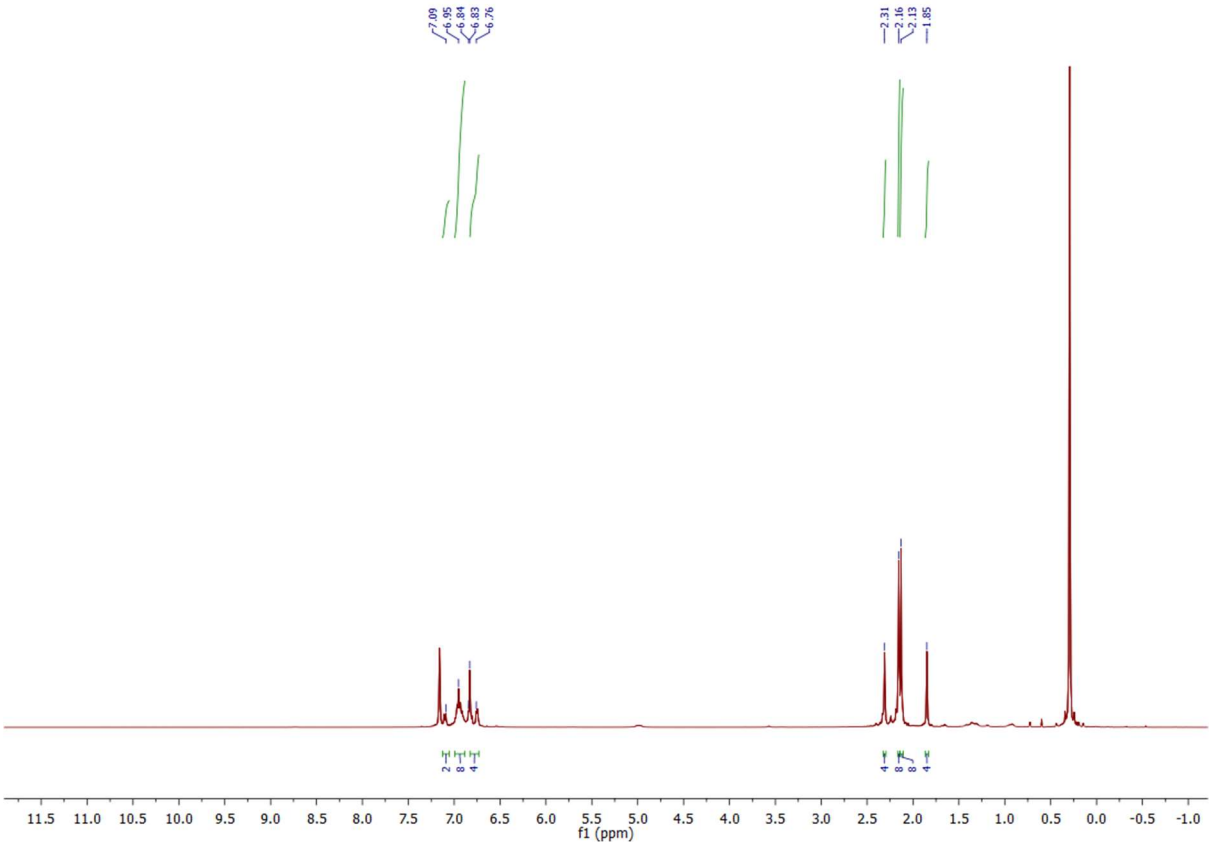

Fig. S1 ^{1}H NMR spectrum (400 MHz, C_6D_6, 25 °C) of **[Al(XylForm)$_2$Cl] (1)**. The intense peak at *ca.* 0.3 ppm is due to adventitious silicone grease used in Schlenk taps and stoppers.

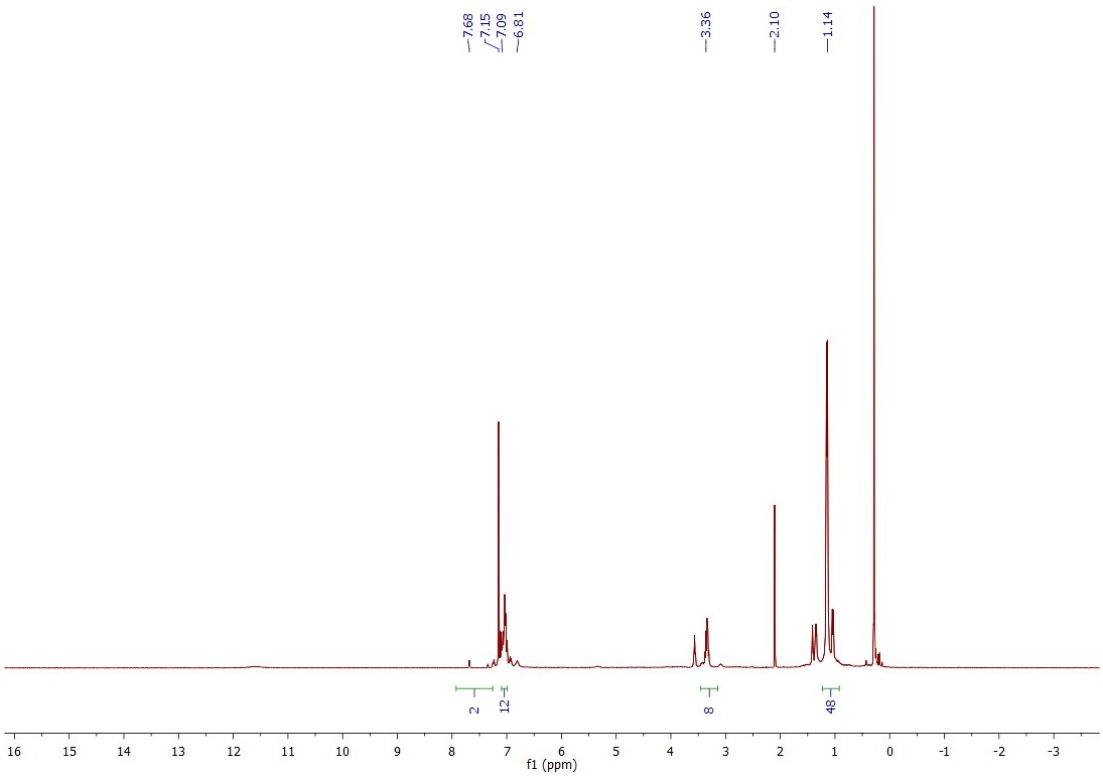

Fig. S2 ^{1}H NMR spectrum (400 MHz, C_6D_6, 25 °C) of **[Al(DippForm)$_2$Cl] (3)**. Impurity: δ = 2.10 (CH3, toluene), 7.09 (Ar-H, toluene). The intense peak at *ca.* 0.3 ppm is due to adventitious silicone grease used in Schlenk taps and stoppers.

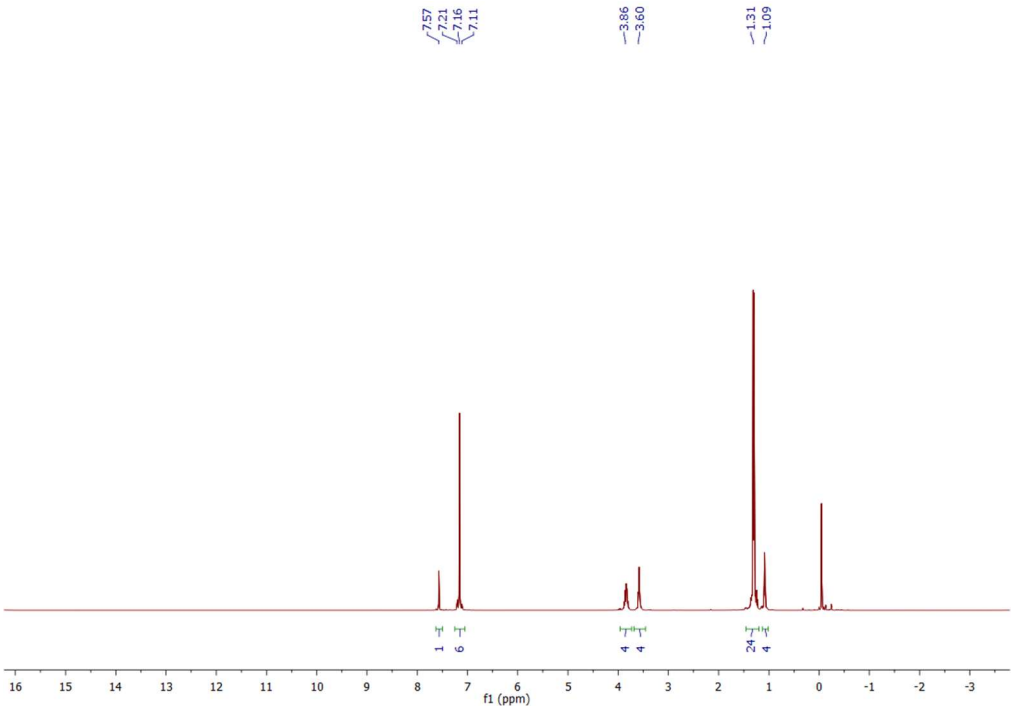

Fig. S3 ^{1}H NMR spectrum (400 MHz, C_6D_6, 25 °C) of **[Al(DippForm)ClBr(thf)] (6).** The peak at *ca.* 0.0 ppm is due to adventitious silicone grease used in Schlenk taps and stoppers.

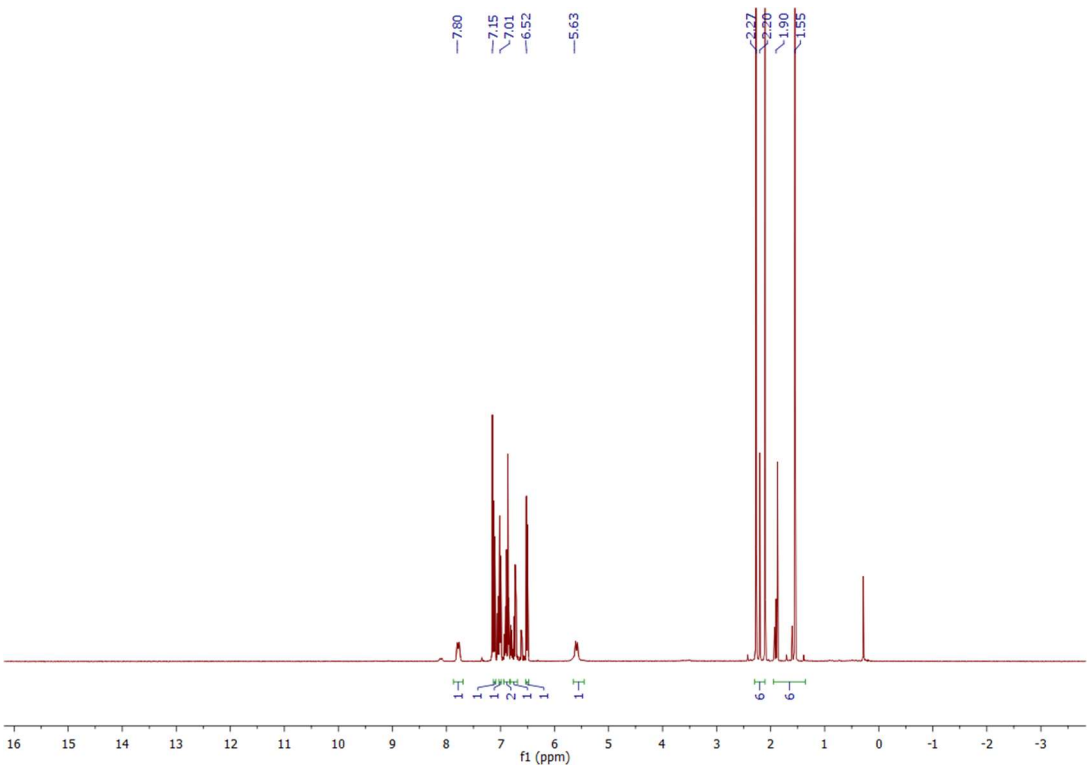

Fig. S4 ^{1}H NMR spectrum (400 MHz, C_6D_6, 25 °C) of **[Al(XylFormH)Br$_3$] (7).** The peak at *ca.* 0.0 ppm is due to adventitious silicone grease used in Schlenk taps and stoppers.

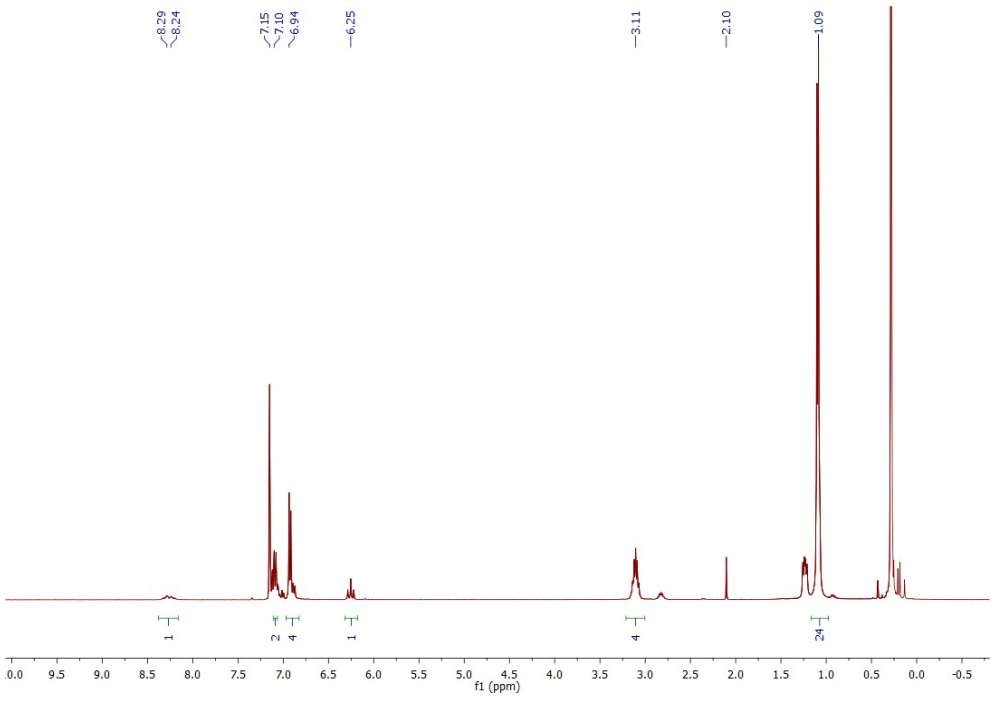

Fig. S5 ^{1}H NMR spectrum (400 MHz, C_6D_6, 25 °C) of **[Al(DippFormH)Br$_3$] (8)**. Impurity: δ = 2.10 (CH3, toluene), 7.10 (Ar-H, toluene). The intense peak at *ca.* 0.3 ppm is due to adventitious silicone grease used in Schlenk taps and stoppers.

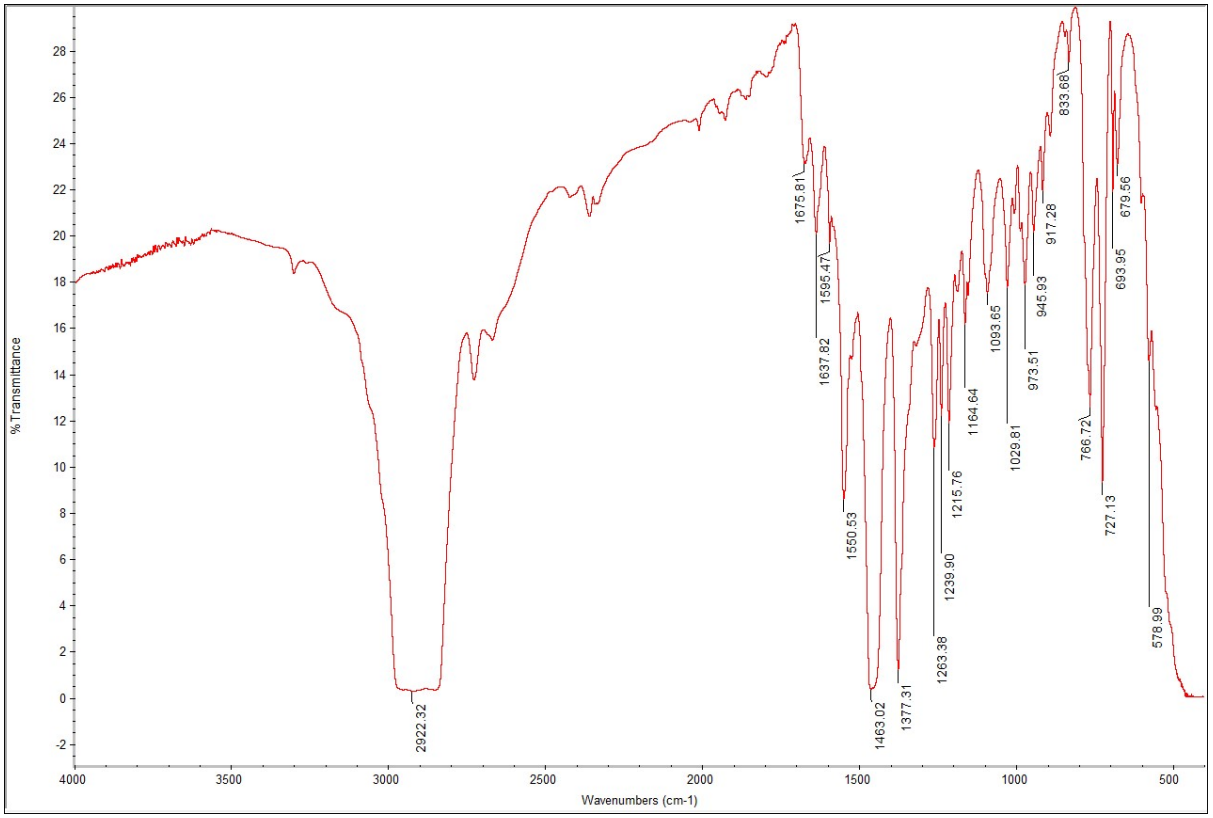

Fig. S6 IR spectrum of **[Al(XylForm)$_2$I]·PhMe (2)**

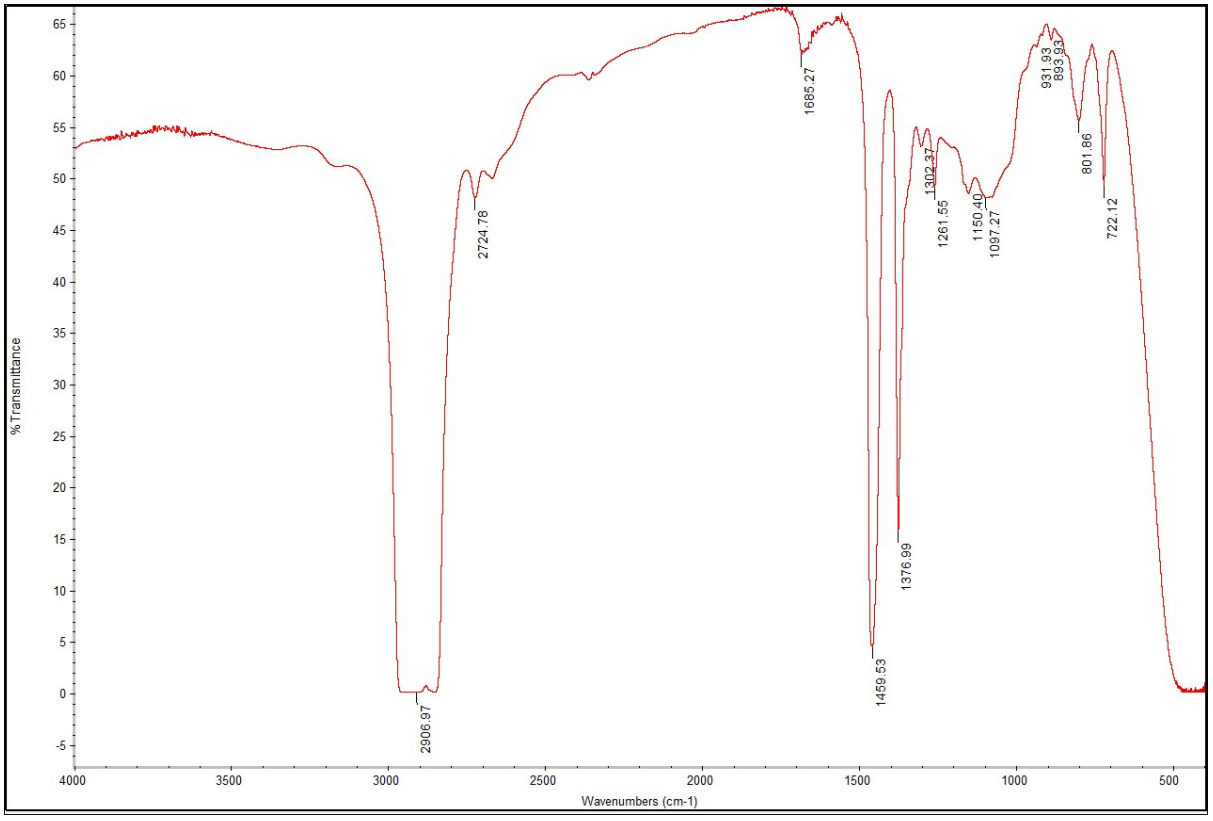

Fig. S7 IR spectrum of **[Al(DippForm)$_2$Cl] (3)**

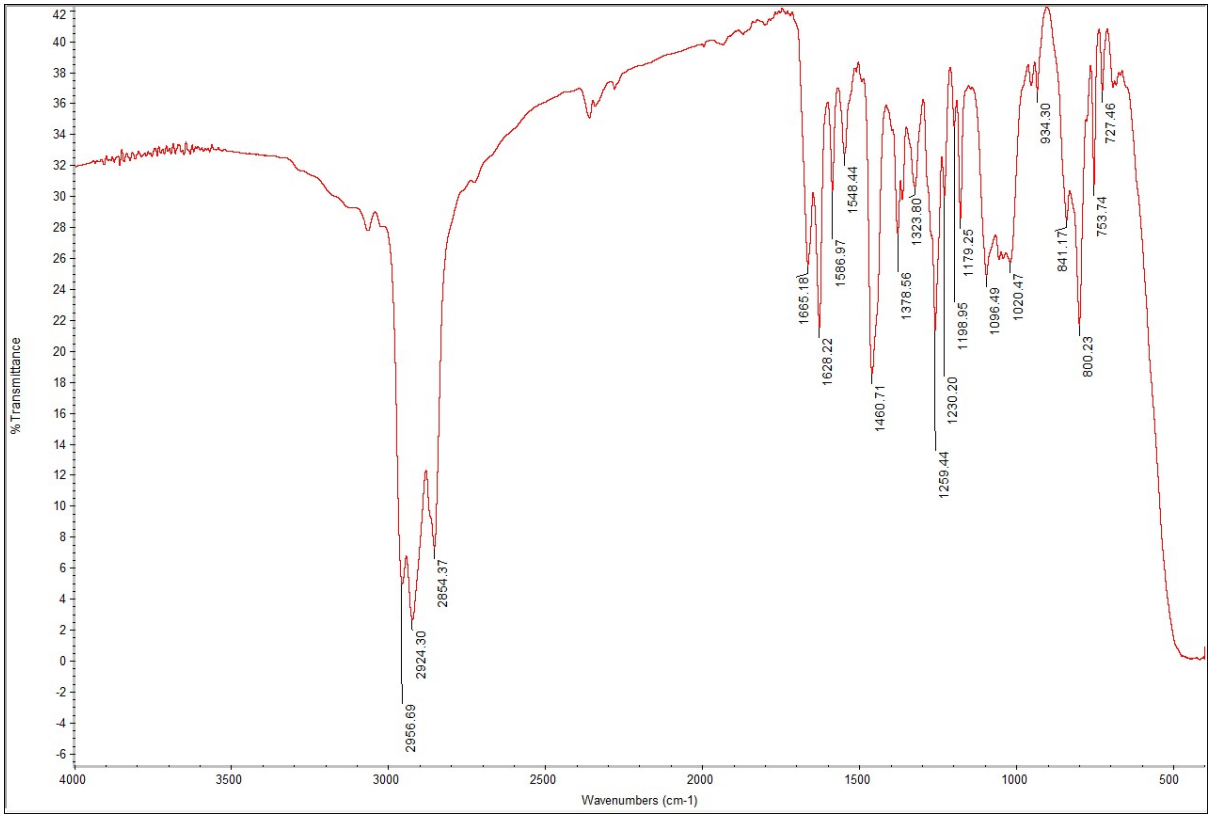

Fig. S8 IR spectrum of **[Al(DippForm)$_2$I] (4)**

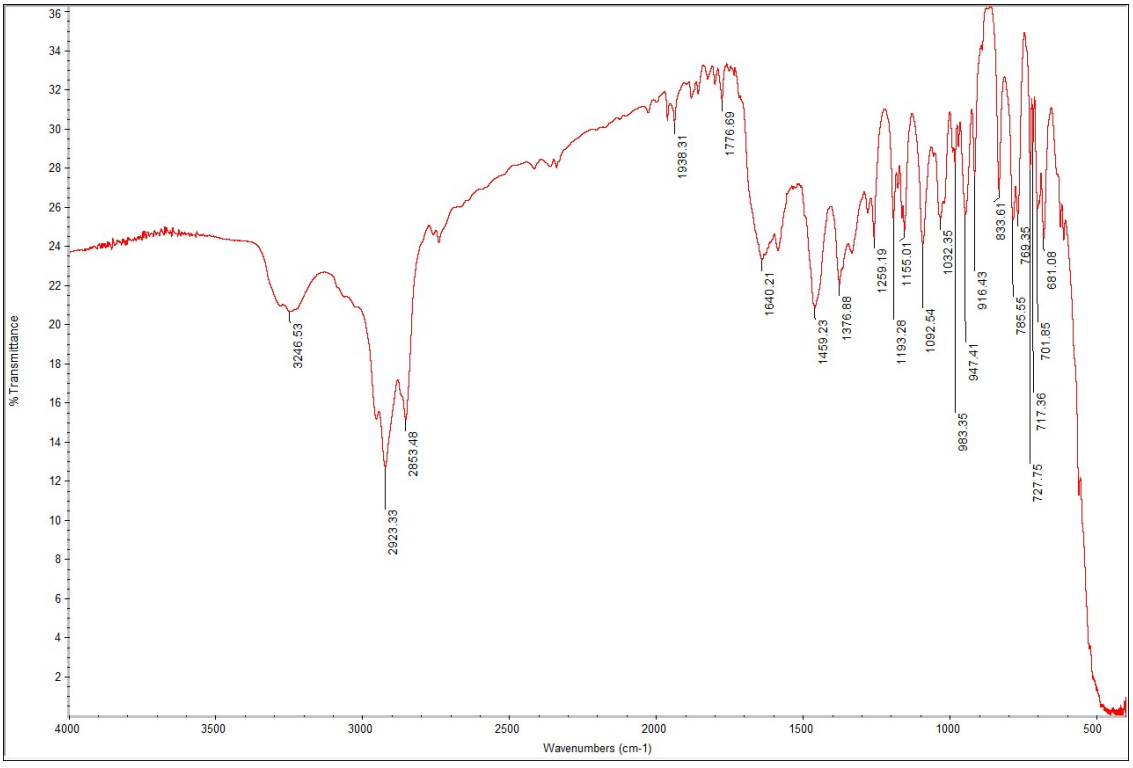

Fig. S9 IR spectrum of **[Al(XylFormH)Br$_3$] (7)**

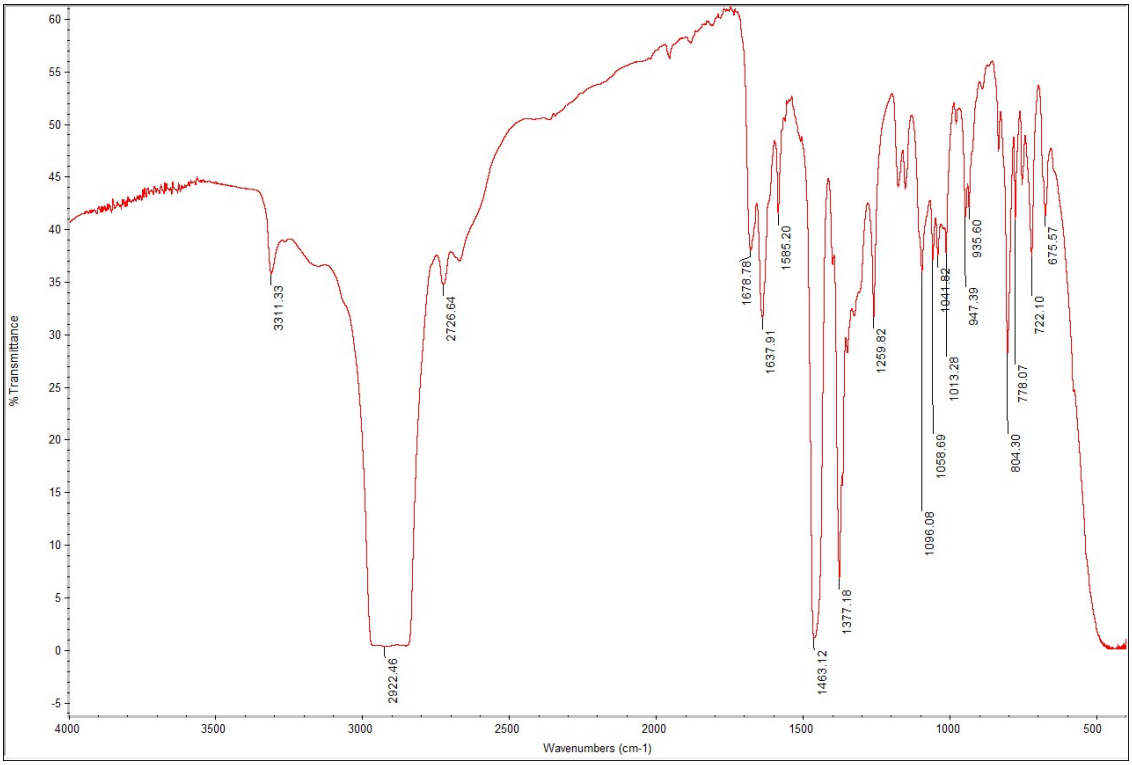

Fig. S10 IR spectrum of **[Al(DippFormH)Br$_3$] (8)**