

Supporting information

**Rare-earth metal bis(alkyl)s that bear a 2-pyridinemethanamine
ligand: Dual catalysis on the polymerizations of both isoprene
and ethylene**

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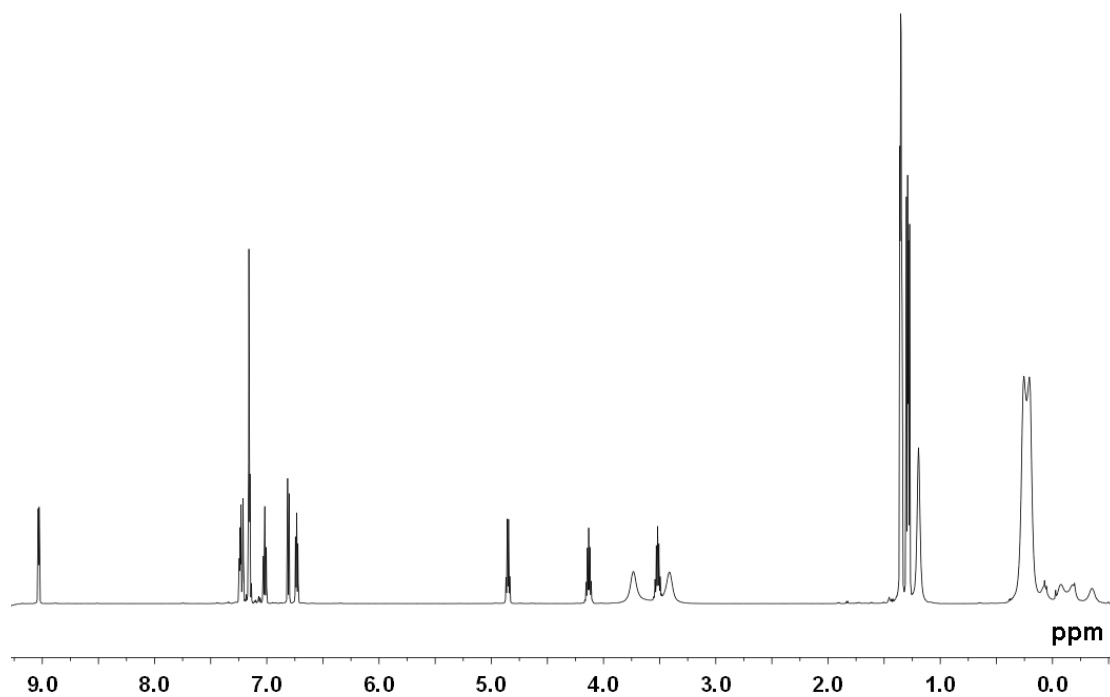


Figure S1. ^1H NMR spectrum ($[\text{D}_6]$ benzene, 25 °C) of complex **1**.

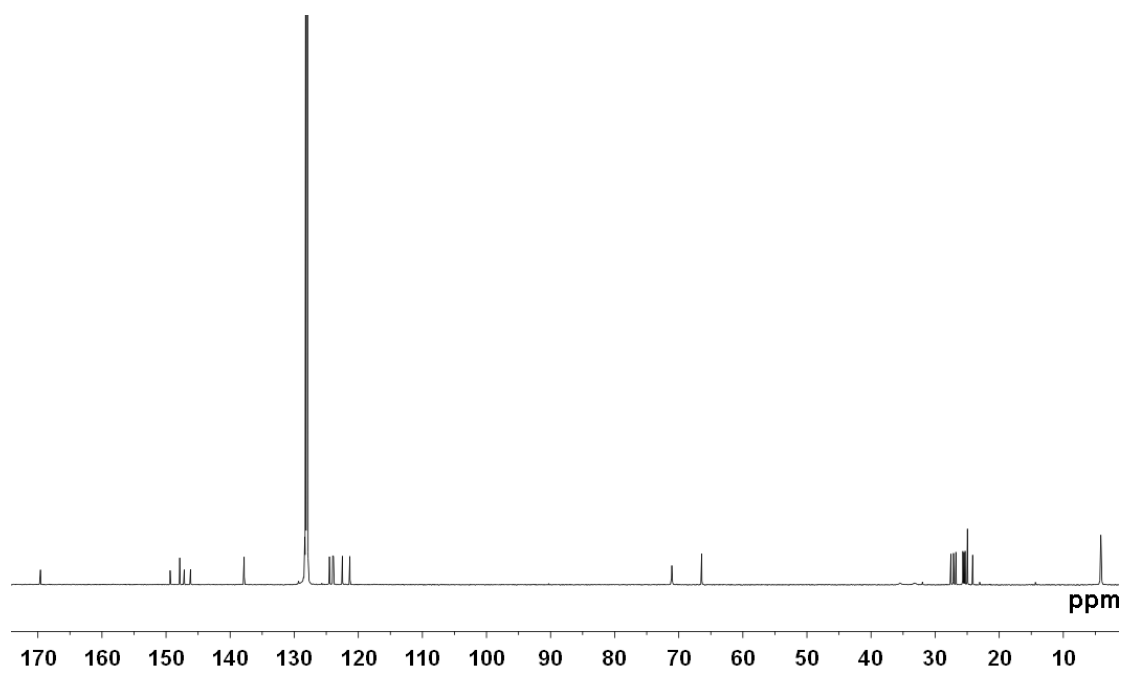


Figure S2. ^{13}C NMR spectrum ($[\text{D}_6]$ benzene, 25 °C) of complex **1**.

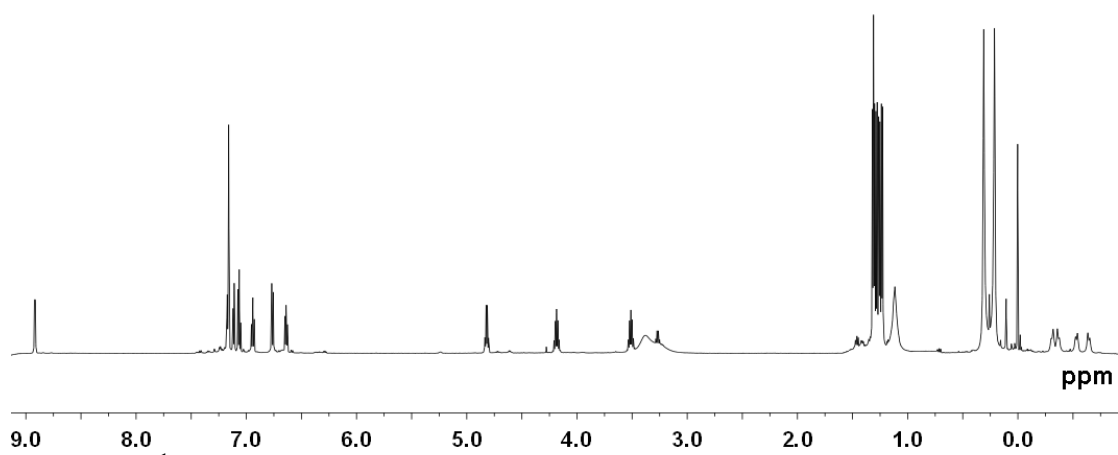


Figure S3. ^1H NMR spectrum ($[\text{D}_6]$ benzene, 25 °C) of complex **2**.

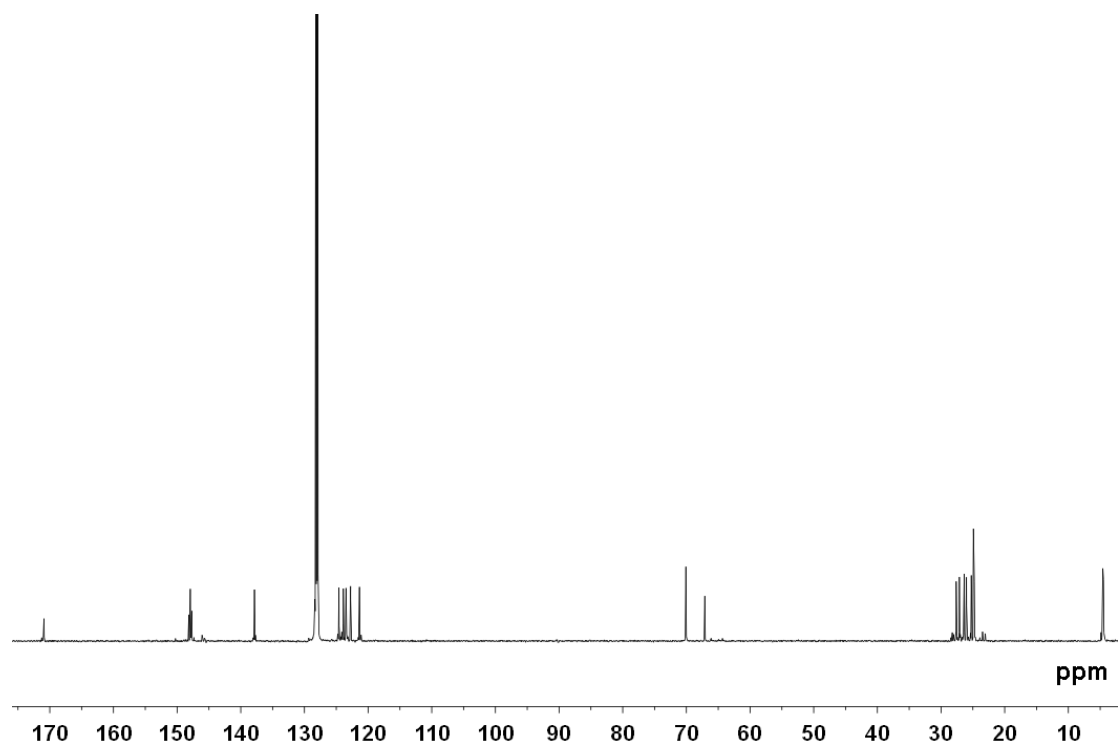


Figure S4. ^{13}C NMR spectrum ($[\text{D}_6]$ benzene, 25 °C) of complex **2**.

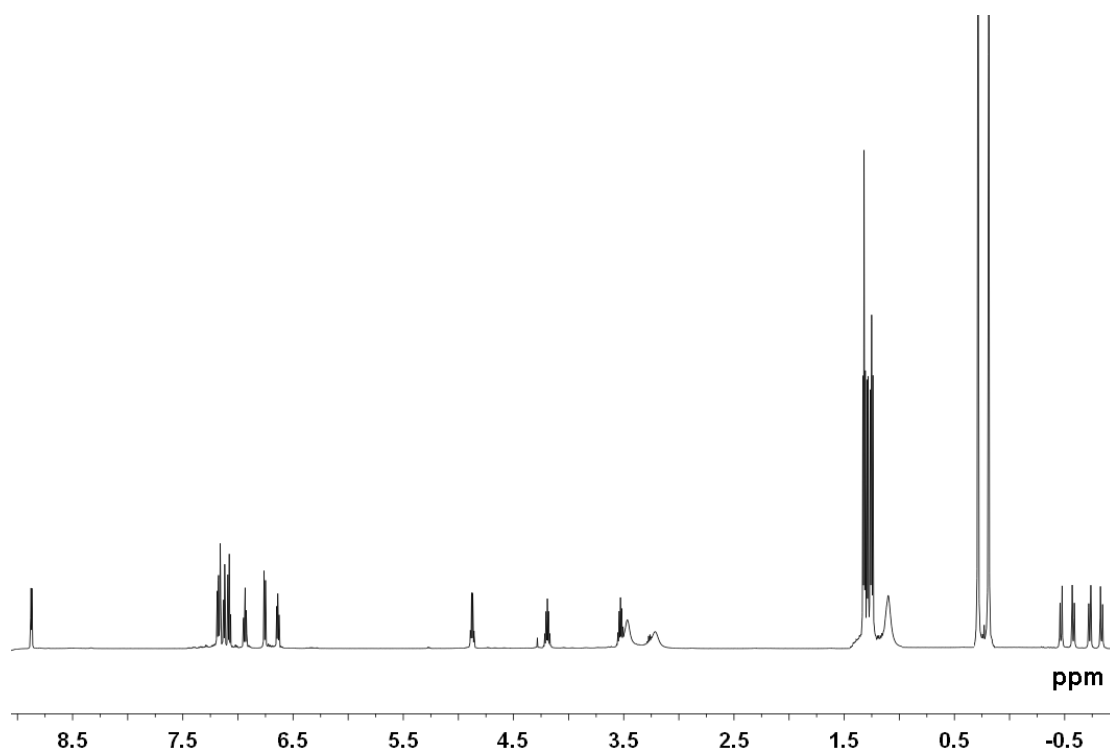


Figure S5. ^1H NMR spectrum ($[\text{D}_6]$ benzene, 25 °C) of complex 3.

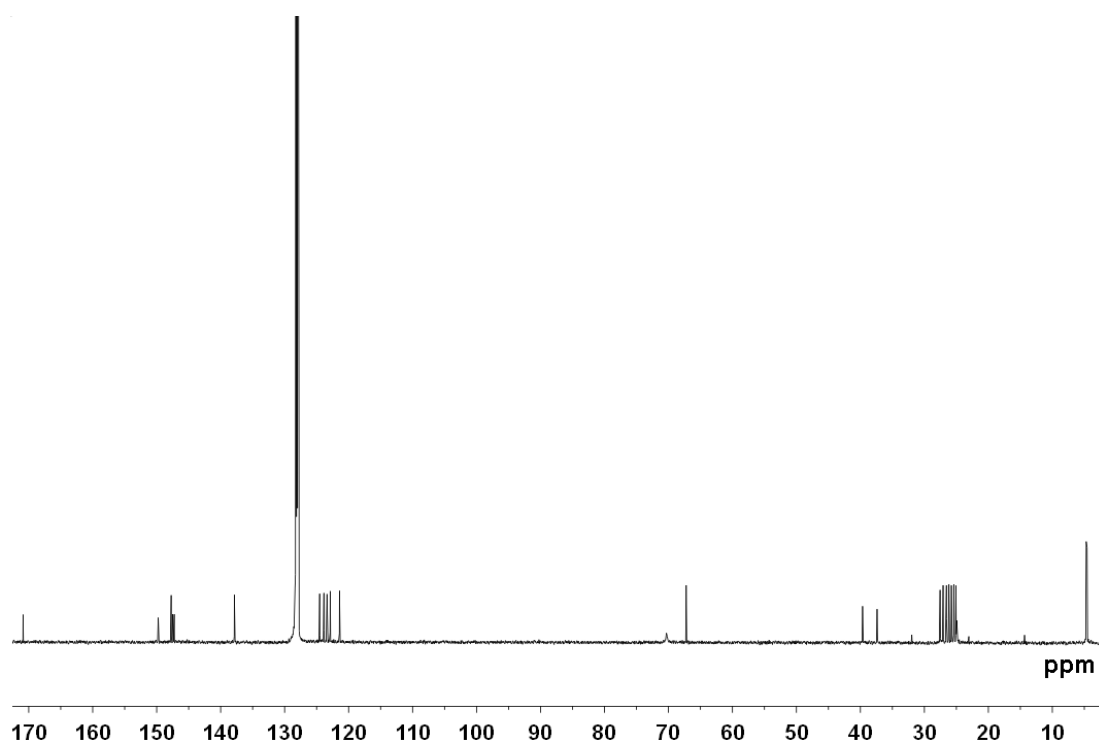


Figure S6. ^{13}C NMR spectrum ($[\text{D}_6]$ benzene, 25 °C) of complex 3.