Supplementary Information

Enhanced Thermal Stability of Cu-Silylphosphido Complexes via NHC Ligation

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Sample homogeneity of $[Cu_6\{P(SiMe_3)_2\}_6]$ (**1**) and $[Ag_6\{P(SiMe_3)_2\}_6]$ (**2**) can be confirmed via powder X-ray diffraction data. Data collection was done at low temperature of crystals that were crushed and ground in a minimum amount of Paratone oil to minimize their decomposition. Simulated patterns from the single crystal data and experimentally obtained PXRDs are presented below.

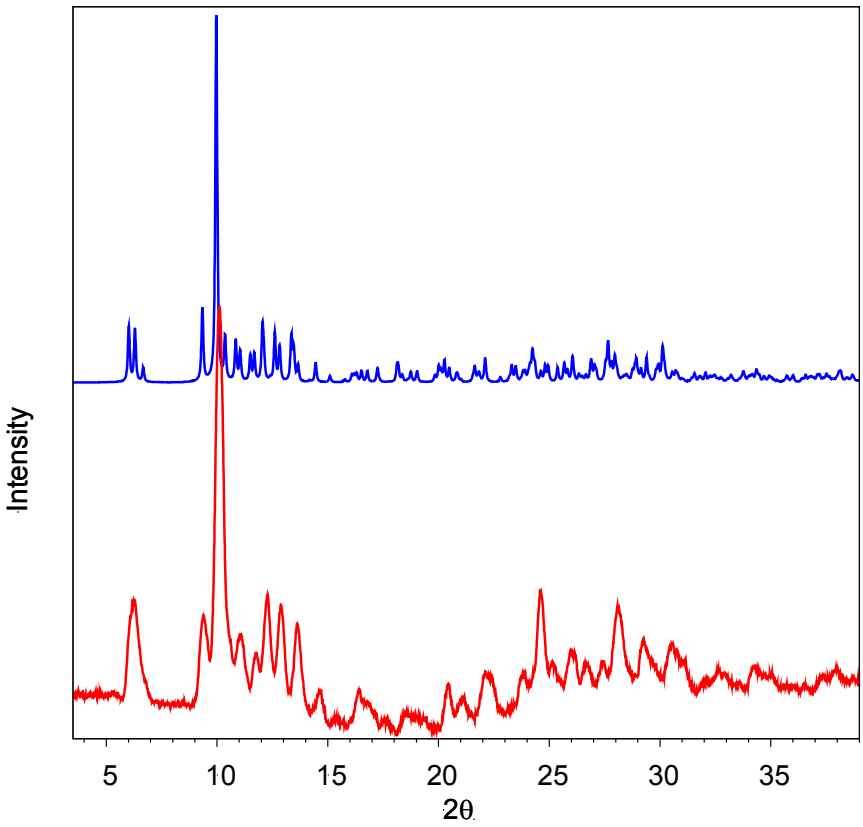

Figure S 1 Simulated (top) and experimentally obtained (bottom) powder X-ray diffraction of $[Ag_6\{P(SiMe_3)_2\}_6]$.

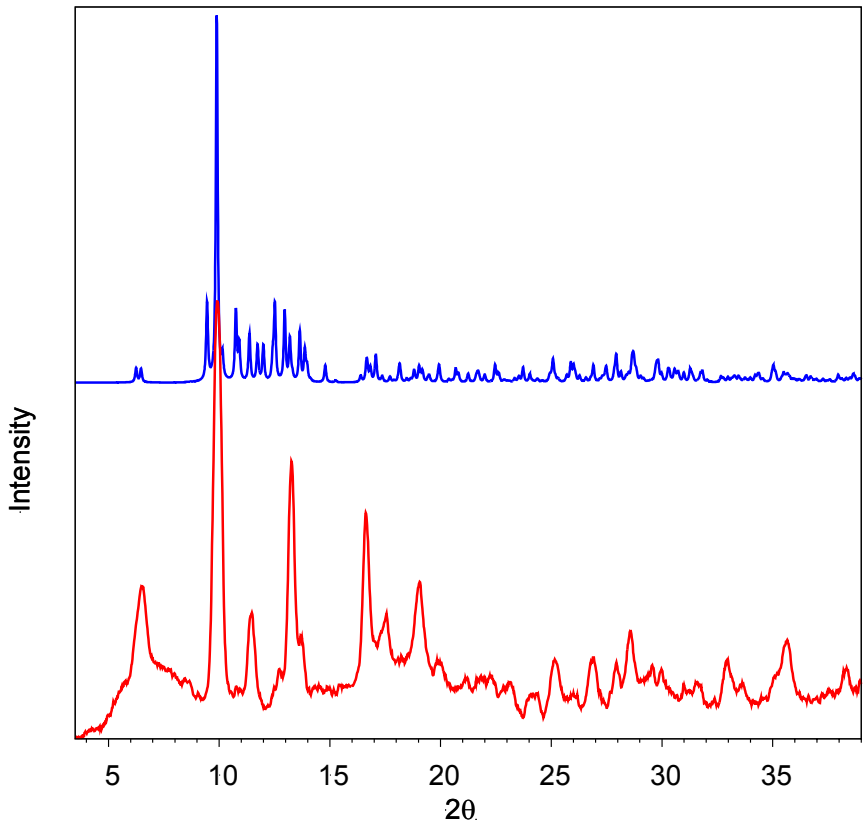

Figure S 2 Simulated (top) and experimentally obtained (bottom) powder X-ray diffraction of $[Cu_6\{P(SiMe_3)_2\}_6]$.

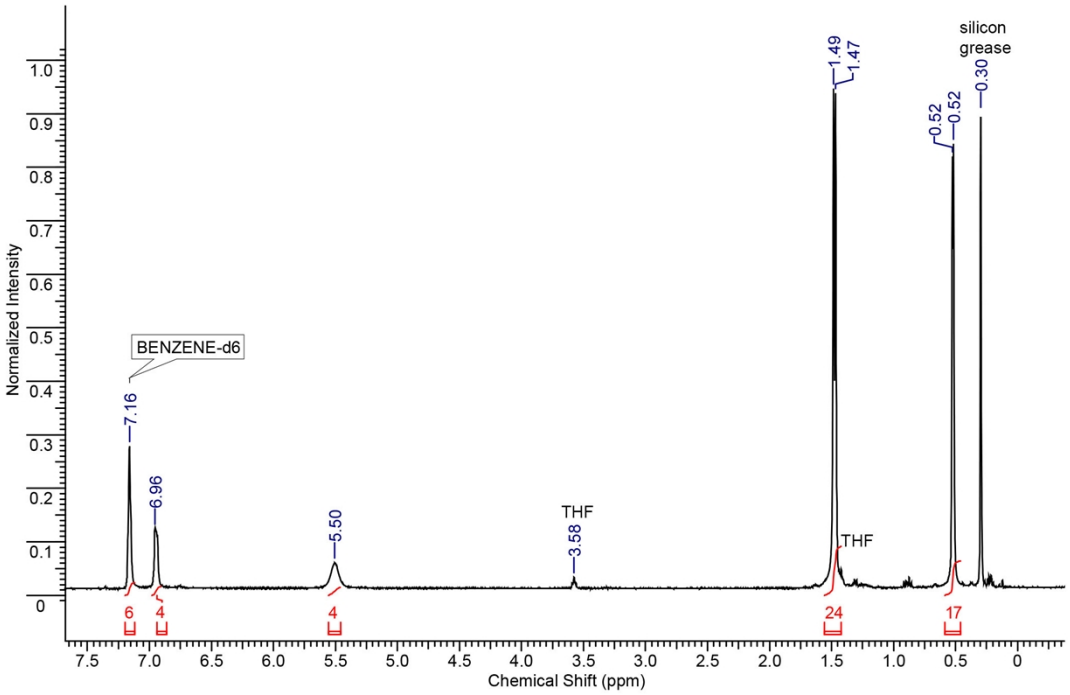

Figure S 3 ^{1}H NMR spectrum of **3**.

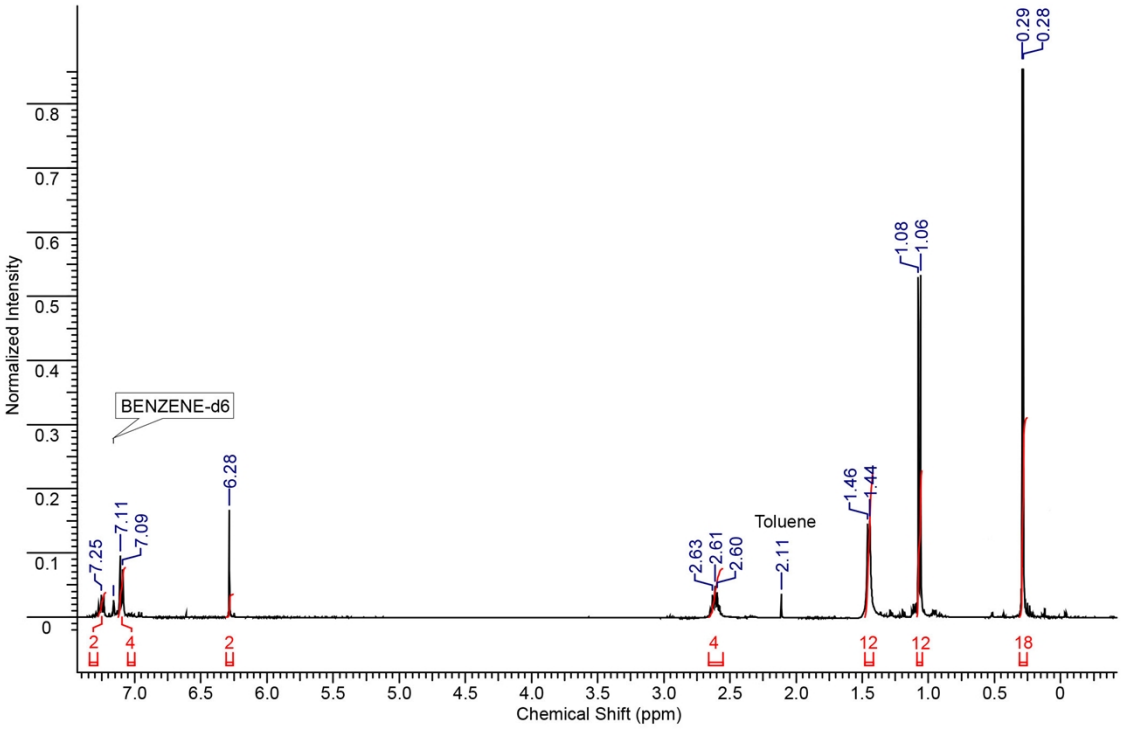

Figure S 4 ^{1}H NMR spectrum of **4**.

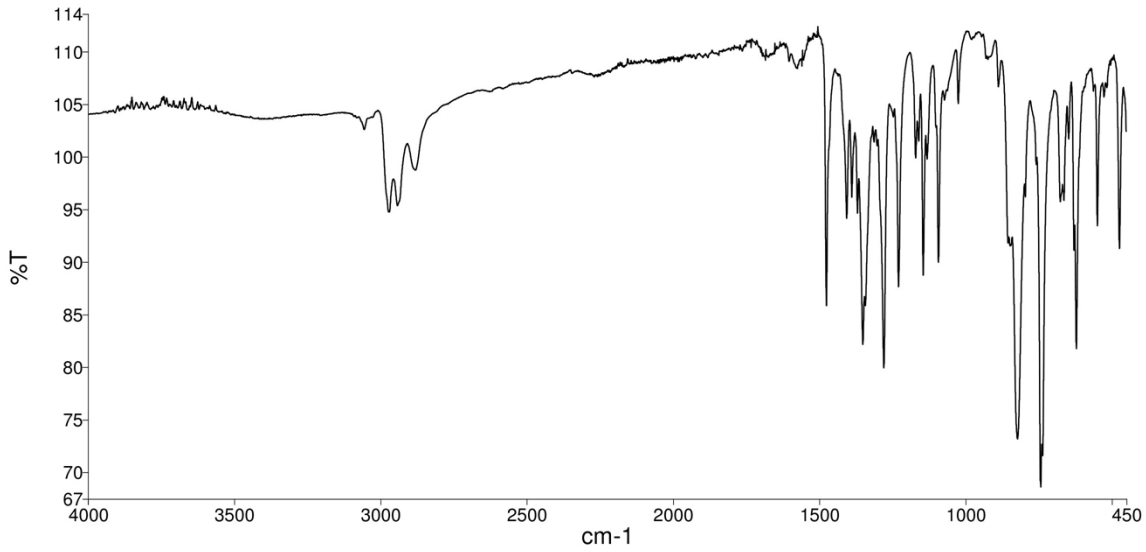

Figure S 5 IR spectrum of **3**.

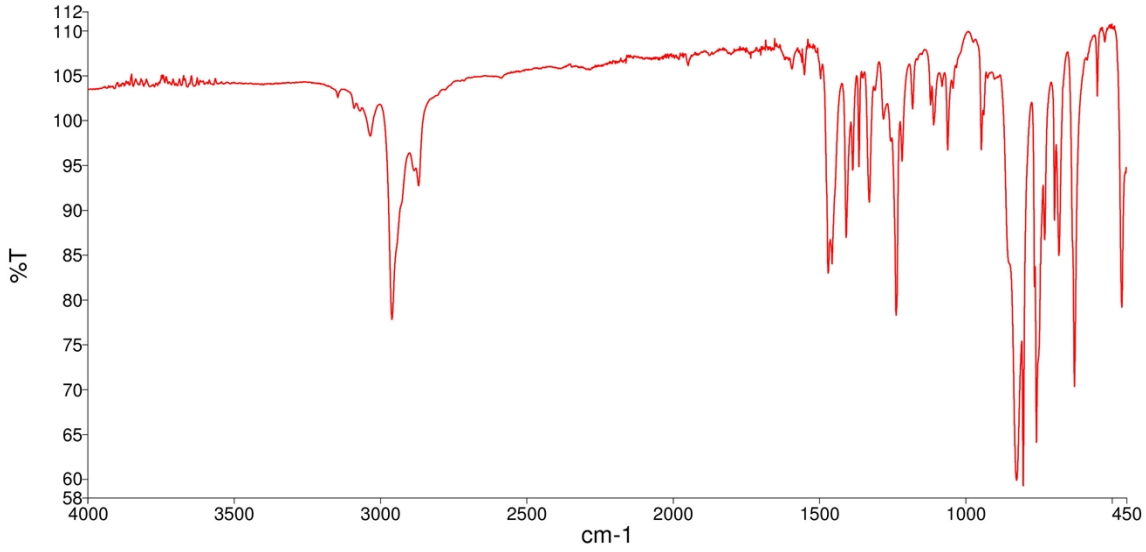

Figure S 6 IR spectrum of **4**.