Electronic Supplementary Information

Heterometallic coordination polymers based on homo- and heteroleptic Au(III) dithiolene complexes

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^{1}H- and ^{13}C-NMR spectra were recorded at 25 °C on a Bruker AV500 (500 MHz) spectrometer with the deuterated solvent as the internal reference. NMR chemical shifts and *J* values are given in parts per million (ppm) and in Hertz, respectively.

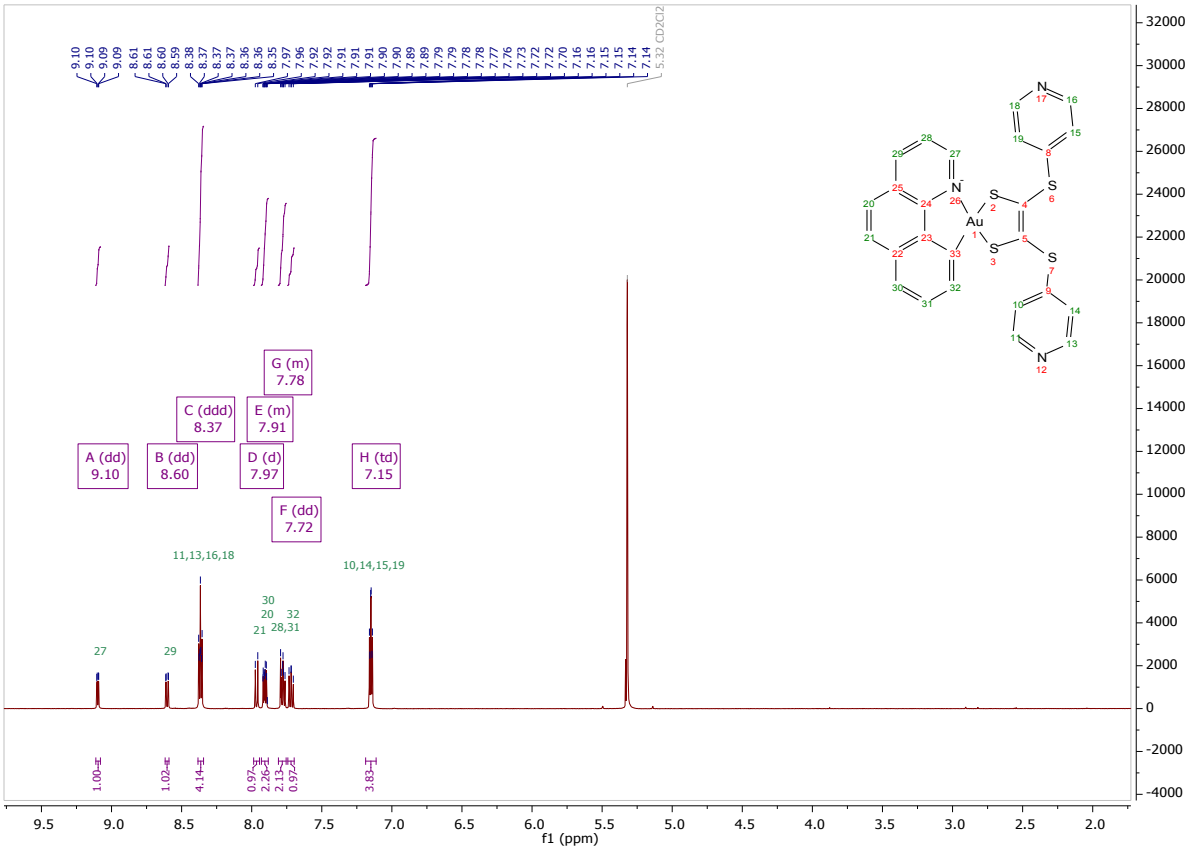

Fig. ESI1 ^{1}H-NMR spectrum of heteroleptic complex **1** in CD_2Cl_2.

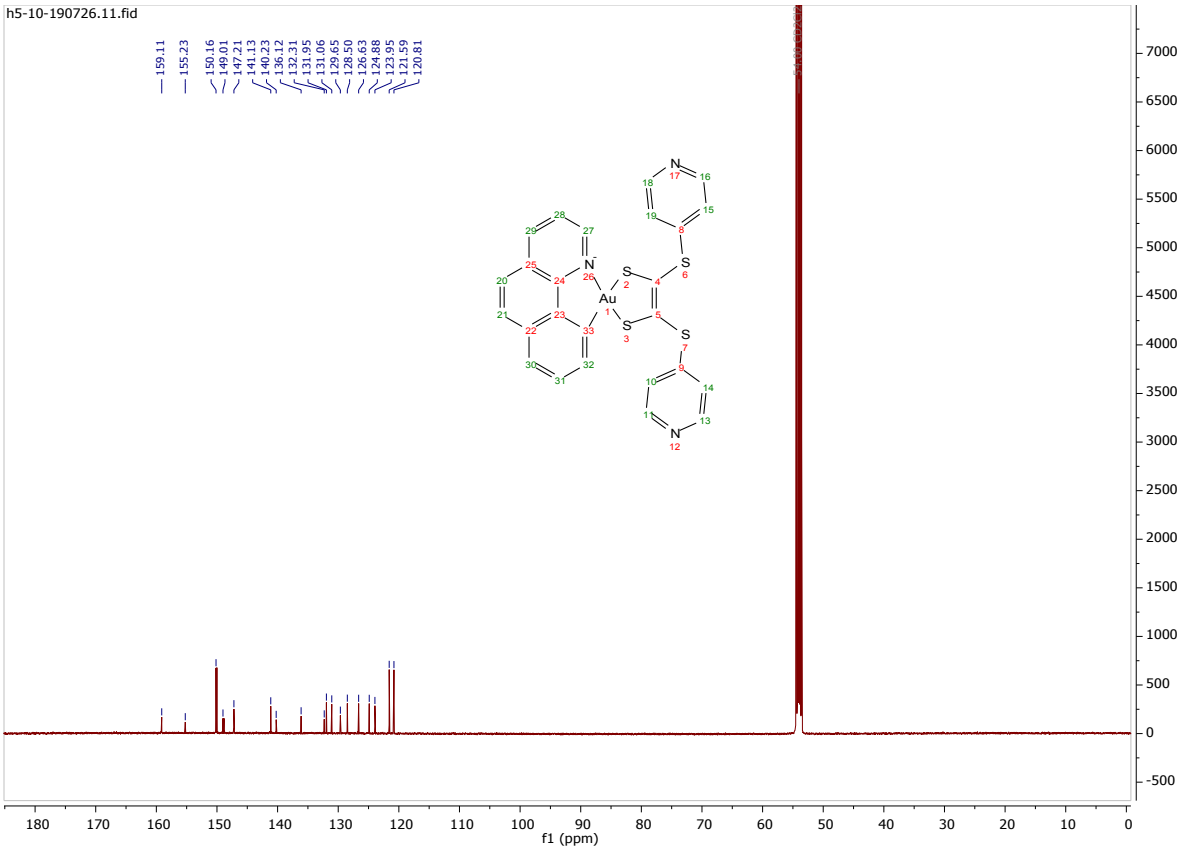

Fig. ESI2 ^{13}C-NMR spectrum of heteroleptic complex **1** in CD_2Cl_2.

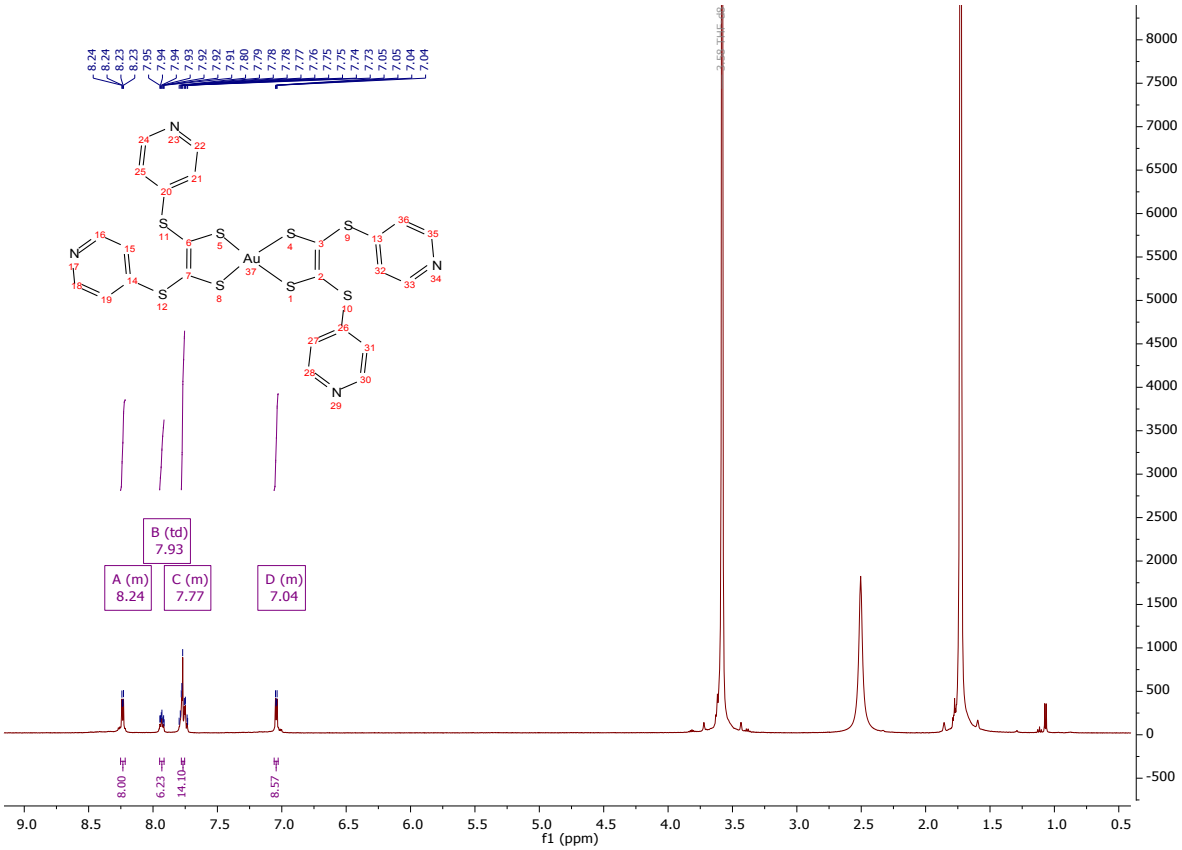

Fig. ESI3 ^{1}H-NMR spectrum of homoleptic complex (PPh_4)**2** in THF-d8.

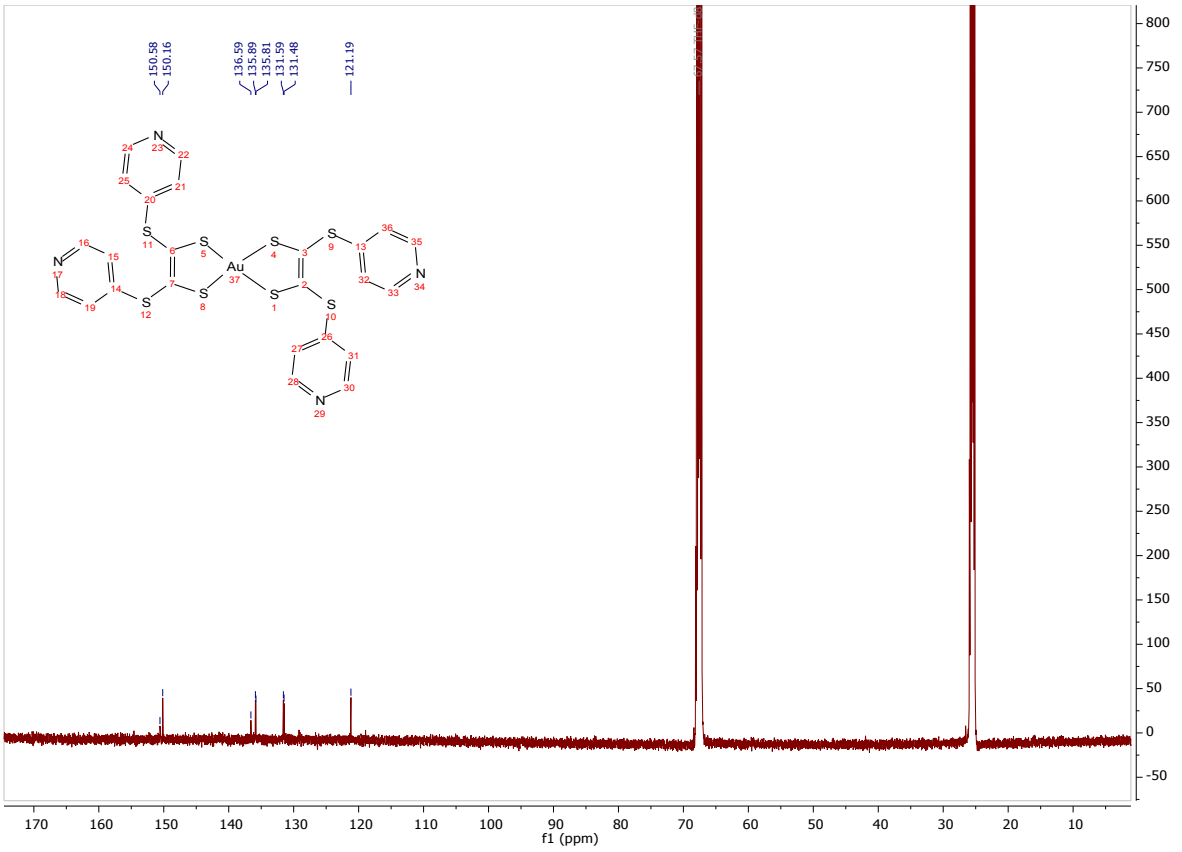

Fig. ESI4 ^{13}C-NMR spectrum of homoleptic complex (PPh_4)**2** in THF-d8.

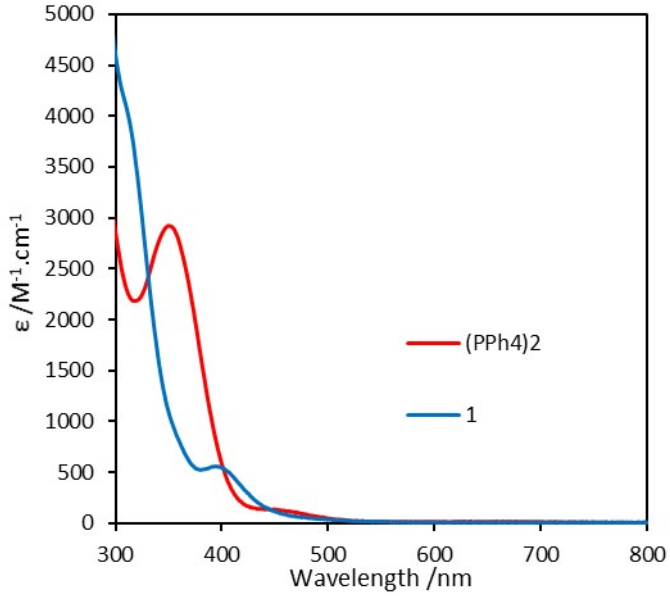

Fig. ESI5 UV-Visible spectrum of complexes **1** and (PPh_4)**2** in DMF at room temperature.

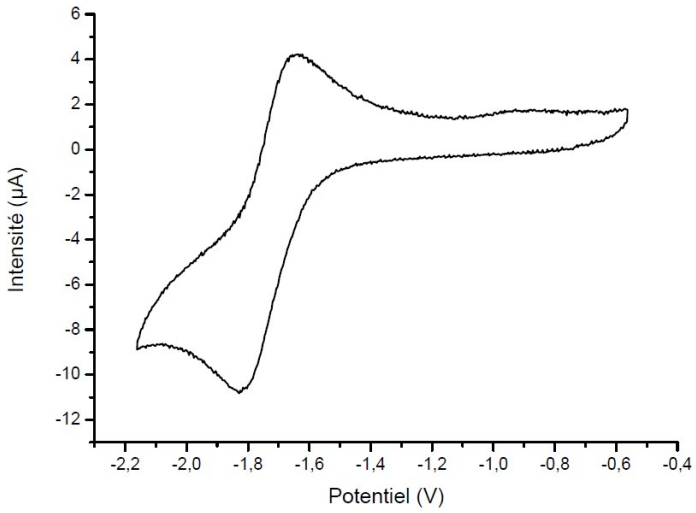

Fig. ESI6 Cyclic voltammogram of (PPh_4)**2** in MeCN (0.1 M *n*-Bu_4NPF_6) *vs* Fc/Fc^+, scan rate: 200 $mv.s^{-1}$.

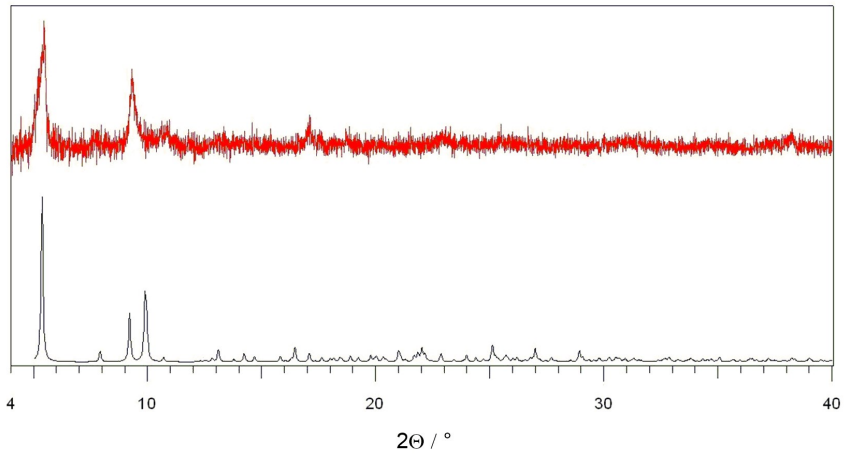

Fig. ESI7 Simulated (black) and experimental (red) PRXD pattern for CP **5**. Broadening and weakening of the diffraction peaks result from solvent loss.

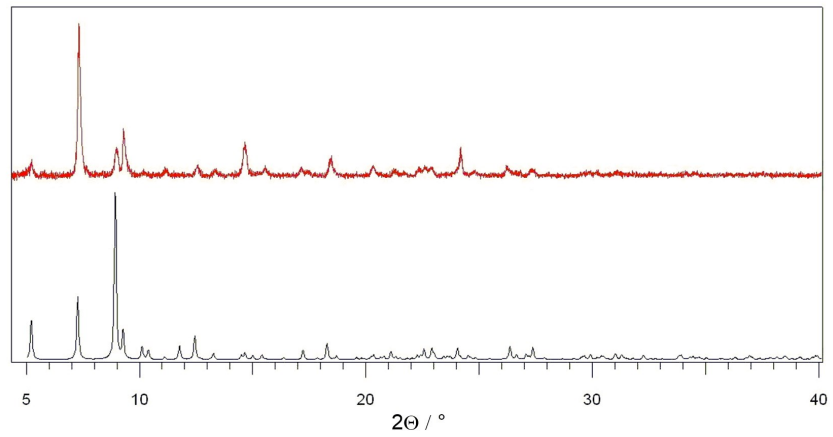

Fig. ESI8 Simulated (black) and experimental (red) PRXD pattern for CP **6**. Difference in peak intensity result from preferential orientation.

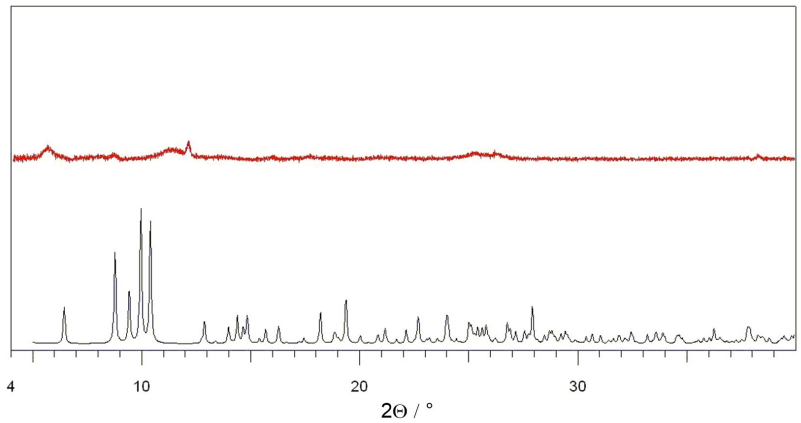

Fig. ESI9 Simulated PRXD pattern for CP **7** (black) and experimental pattern (red) obtained upon analyzing the batch containing a rapidly desolvating major phase and few crystals of **7**.

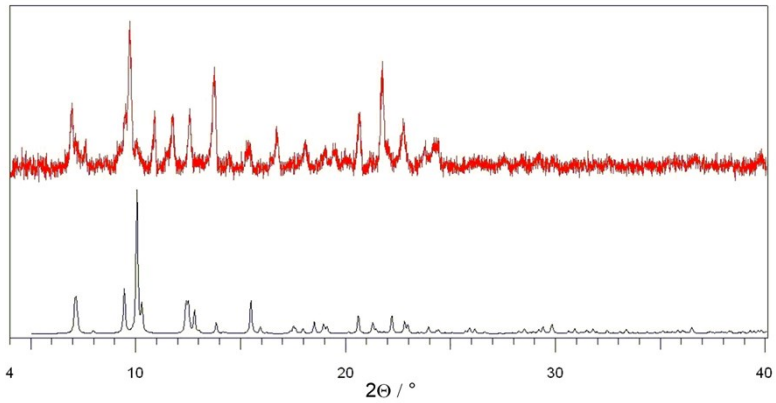

Fig. ESI10 Simulated (black) and experimental (red) PRXD pattern for CP **8**. Broadening and weakening of the diffraction peaks result from solvent loss.