

Electronic Supplementary Information (ESI) of

Au (I), Ag(I), and Pd(II)-coordination driven diverse self-assembly of an *N*-heterocyclic carbene-based amphiphile

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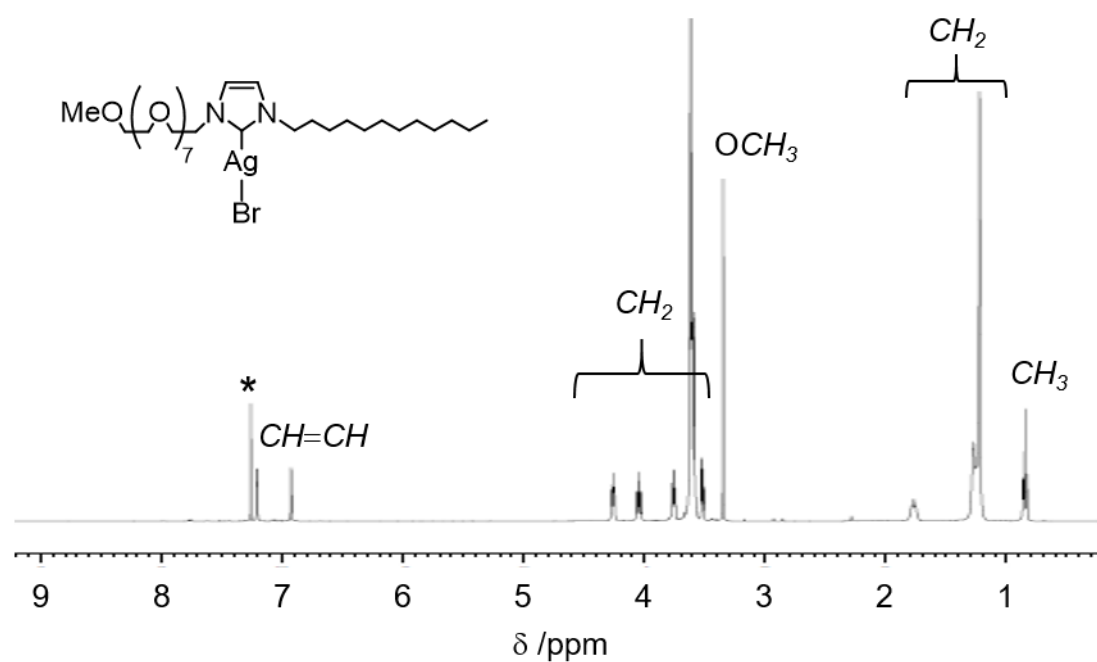


Fig. S1 ^1H NMR spectrum of Ag-MS (400 MHz, CDCl_3 , r.t.). Asterisk represents residual solvent.

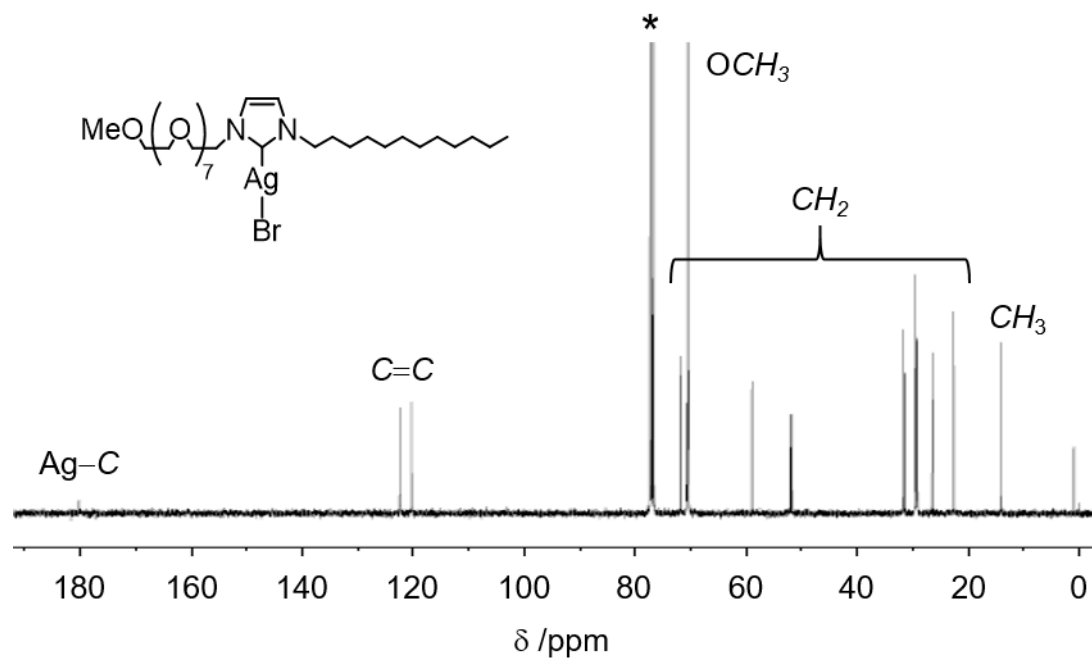


Fig. S2 ^{13}C NMR spectrum of Ag-MS (100 MHz, CDCl_3 , r.t.) Asterisk represents residual solvent.

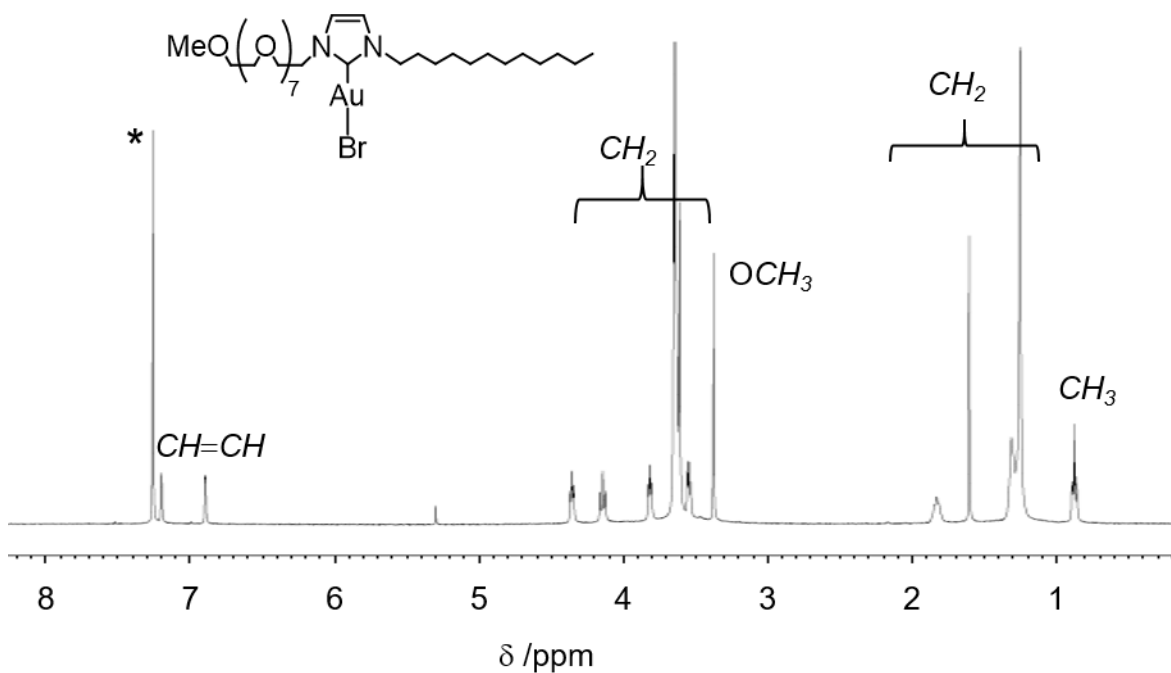


Fig. S3 ^1H NMR spectrum of Au-MS (400 MHz, CDCl_3 , r.t.). Asterisk represents residual solvent.

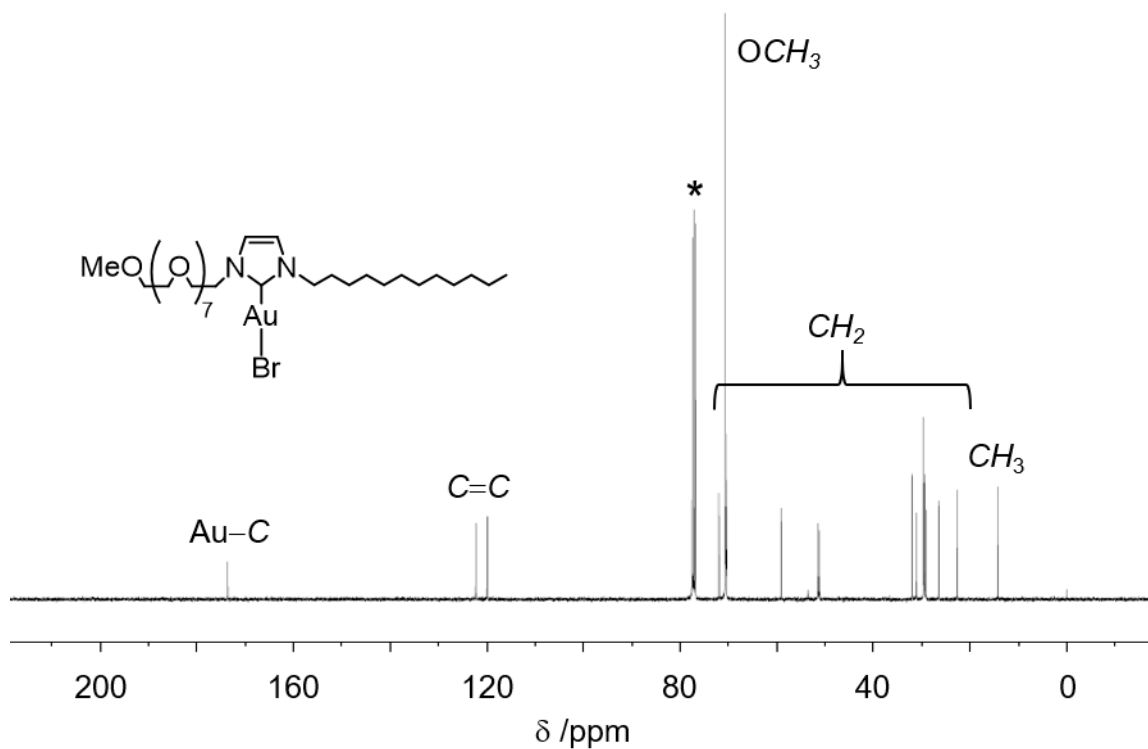


Fig. S4 ^{13}C NMR spectrum of Au-MS (100 MHz, CDCl_3 , r.t.). Asterisk represents residual solvent.

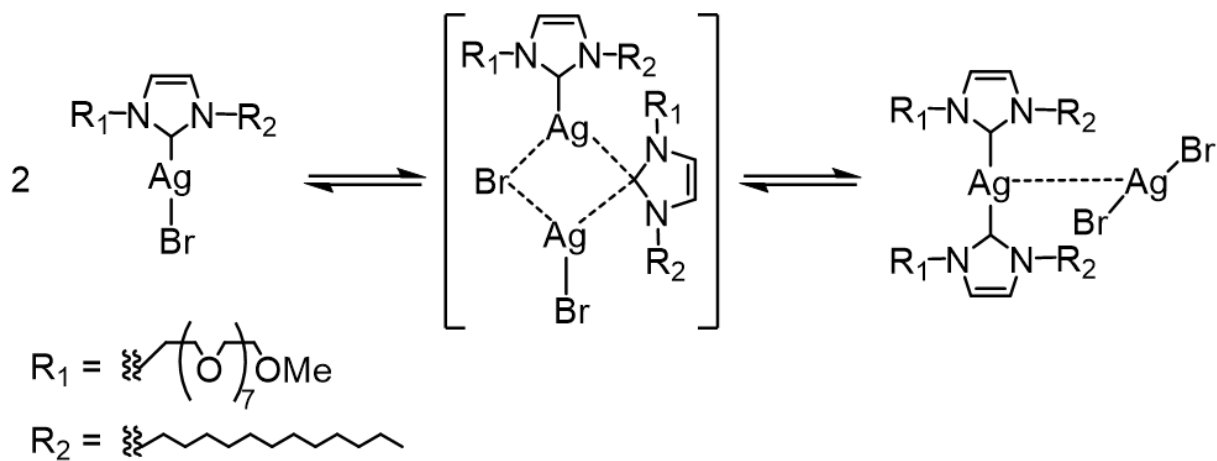


Fig S5 Proposed fluxional behavior of Ag-MS.

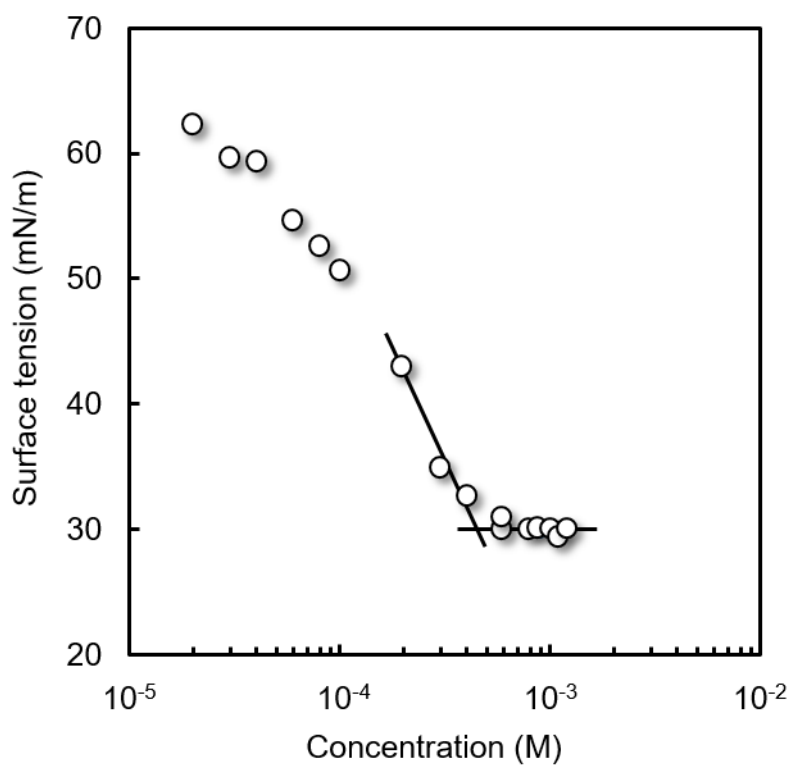


Fig. S6 Relationship between surface tension and concentration of Ag-MS at 25 °C.

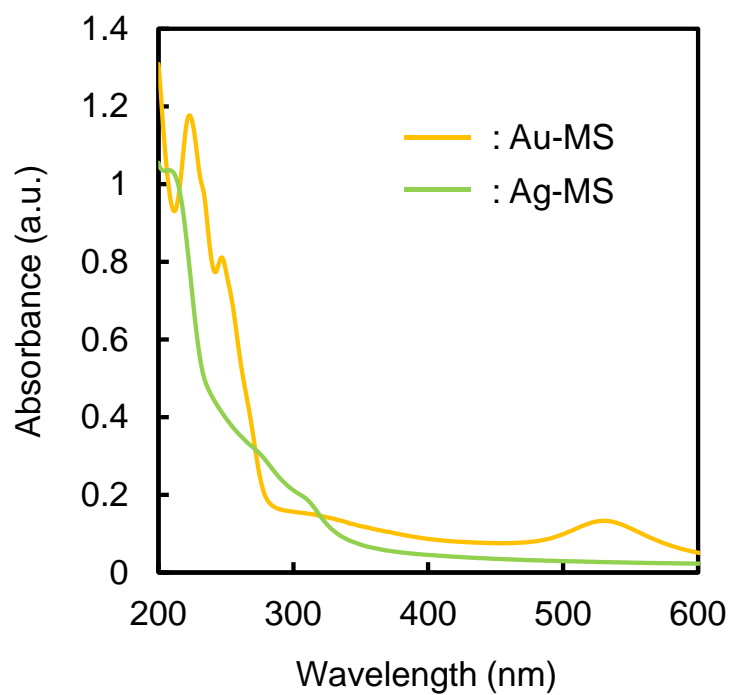


Fig. S7 UV-vis spectra of Au-MS and Ag-MS in water (0.1 mM, 25 °C).

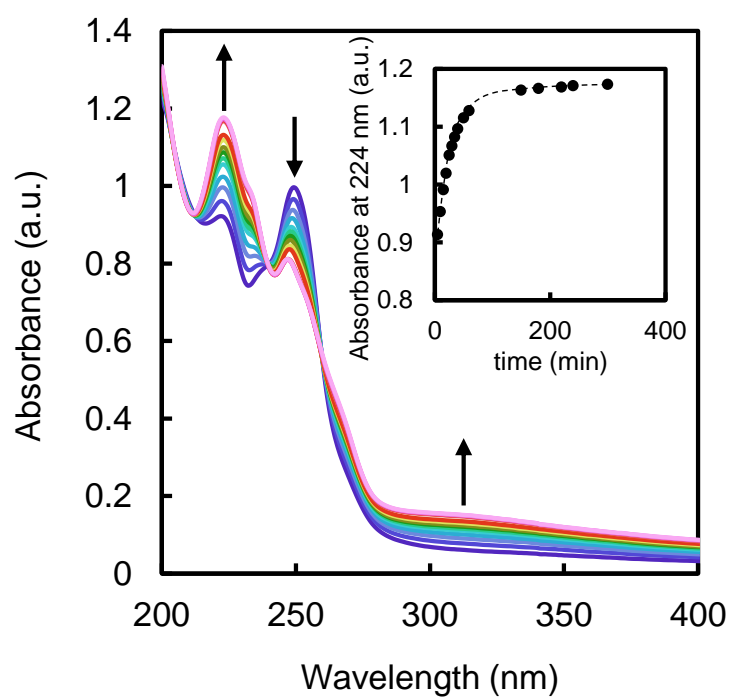


Fig. S8 Time-dependent UV-vis spectra of Au-MS in water (0.1 mM, 25 °C). The first scan was recorded 5 min after the dissolving Au-MS in water. The inset shows the profile monitored by absorption at 224 nm.

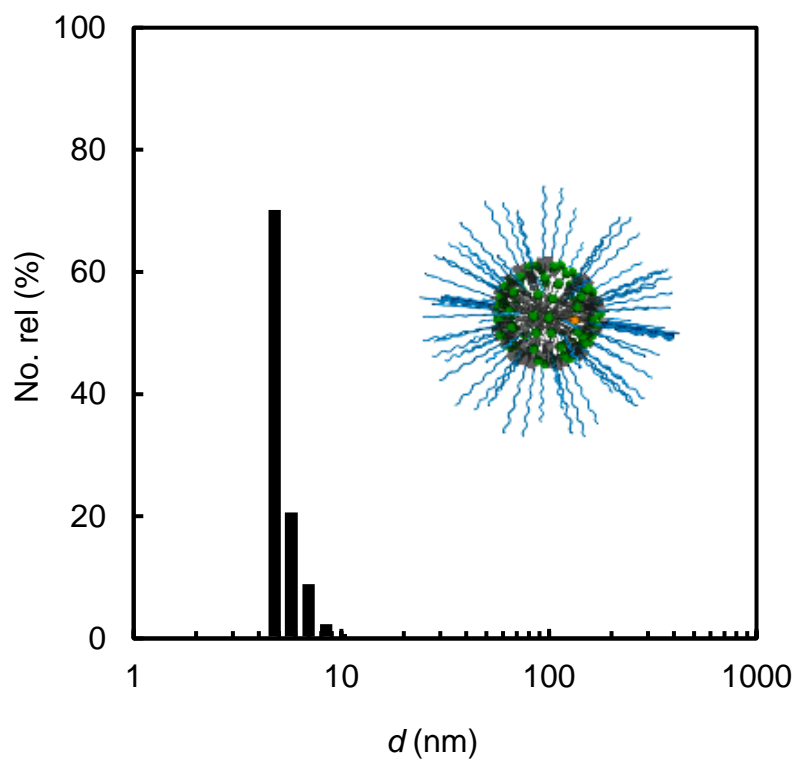


Fig. S9 DLS histogram of Ag-MS (1 mM at 25 °C).

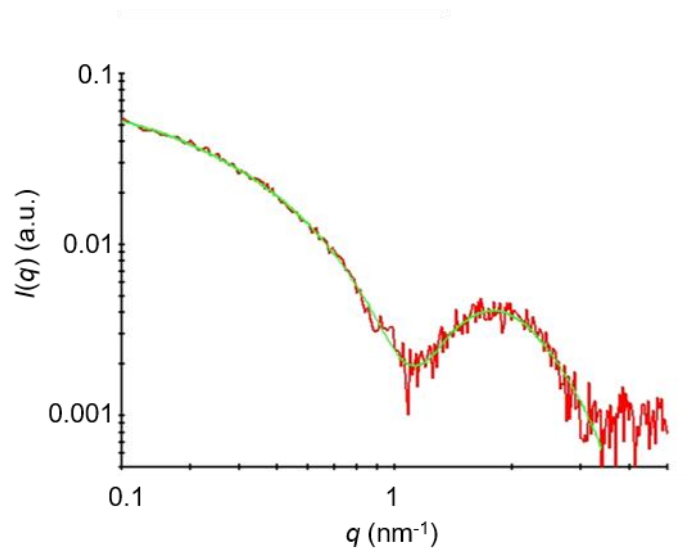


Fig. S10 The X-ray scattering curves $I(q)$, of the 10 mM Pd-MS solution.

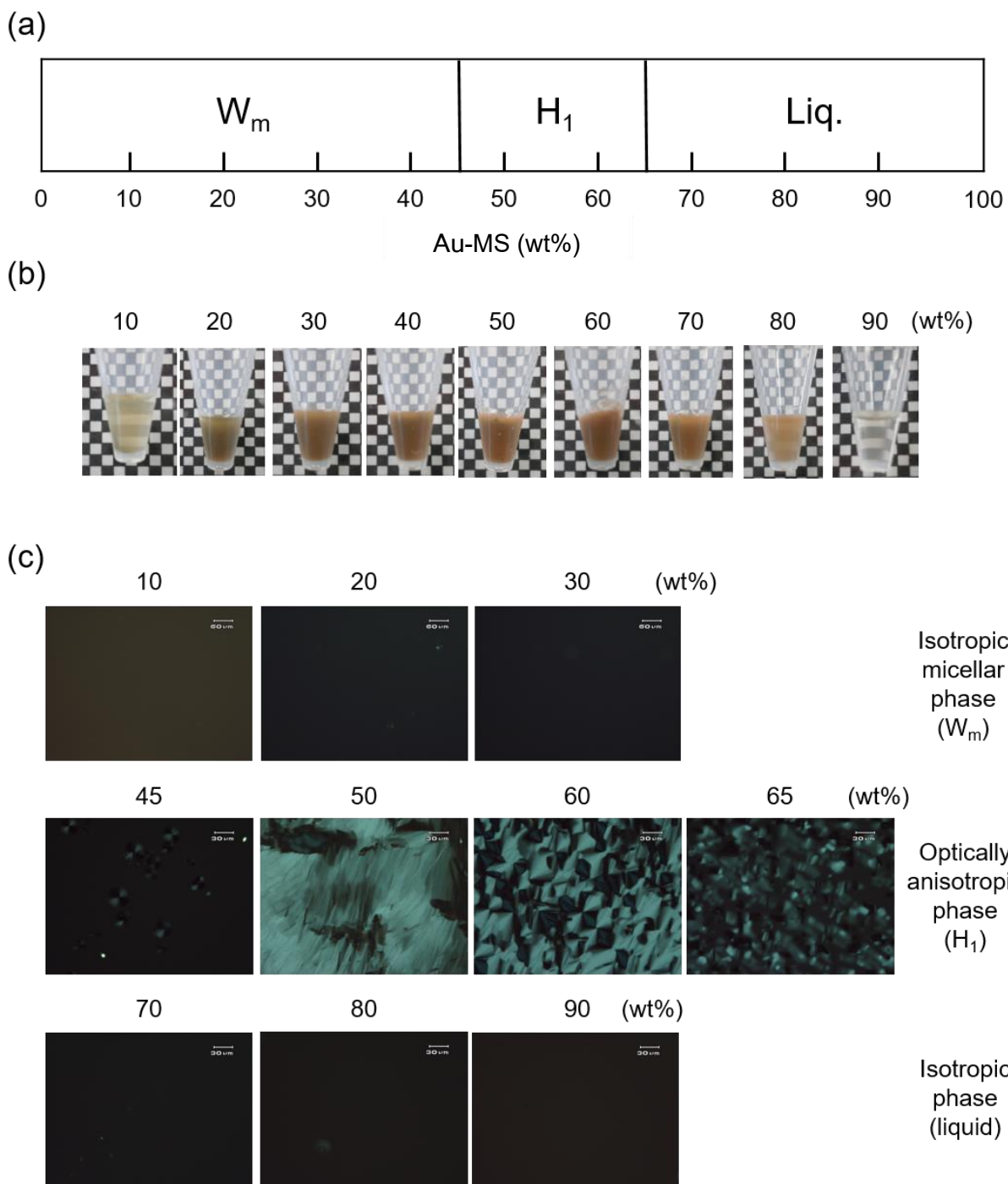


Fig. S11 (a) Two phase diagram of Au-MS and (b) corresponding visual observations and (c) polarized optical microscopic images of each samples.

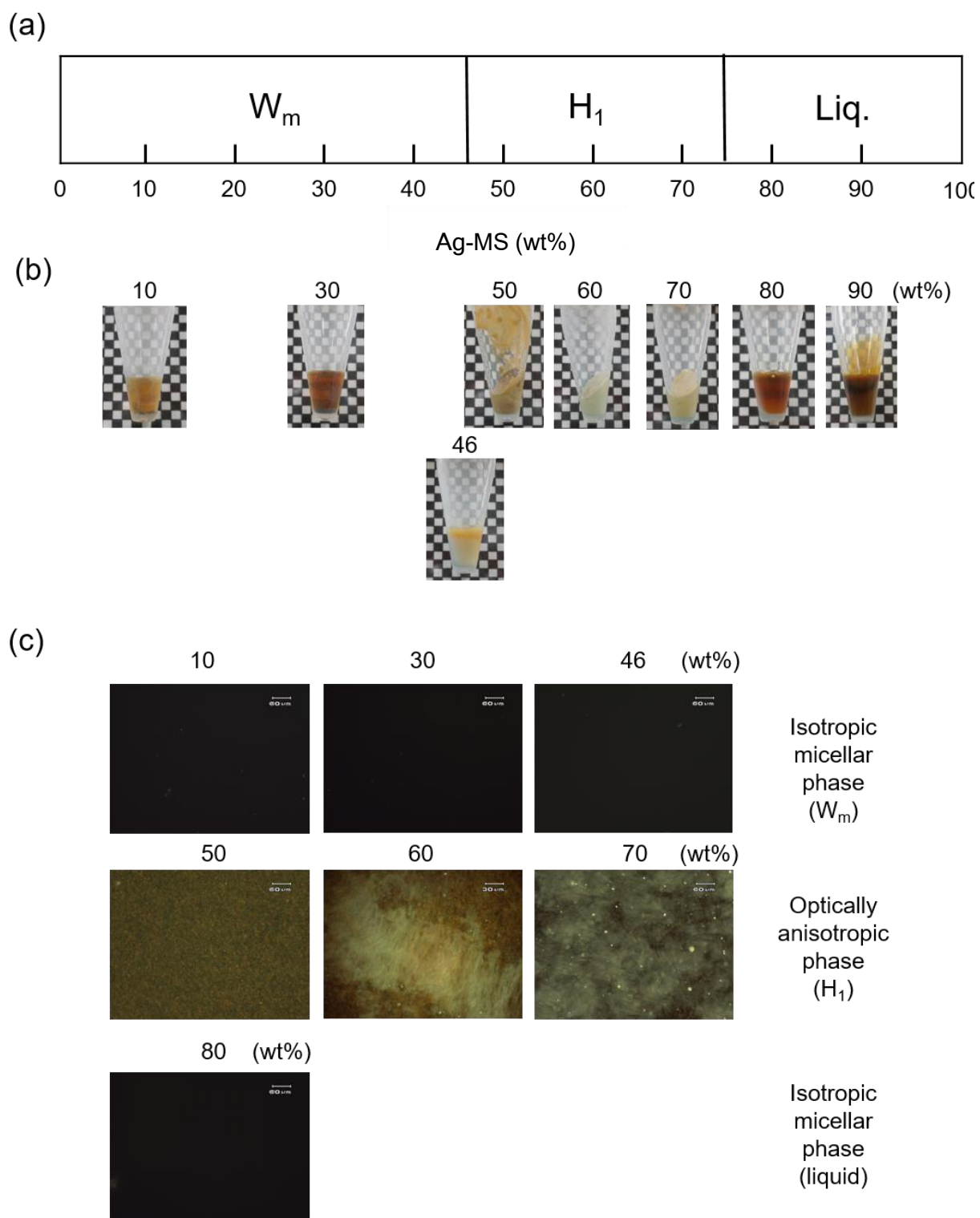


Fig. S12 (a) Two phase diagram of Ag-MS and (b) corresponding visual observations and (c) polarized optical microscopic images of each samples.

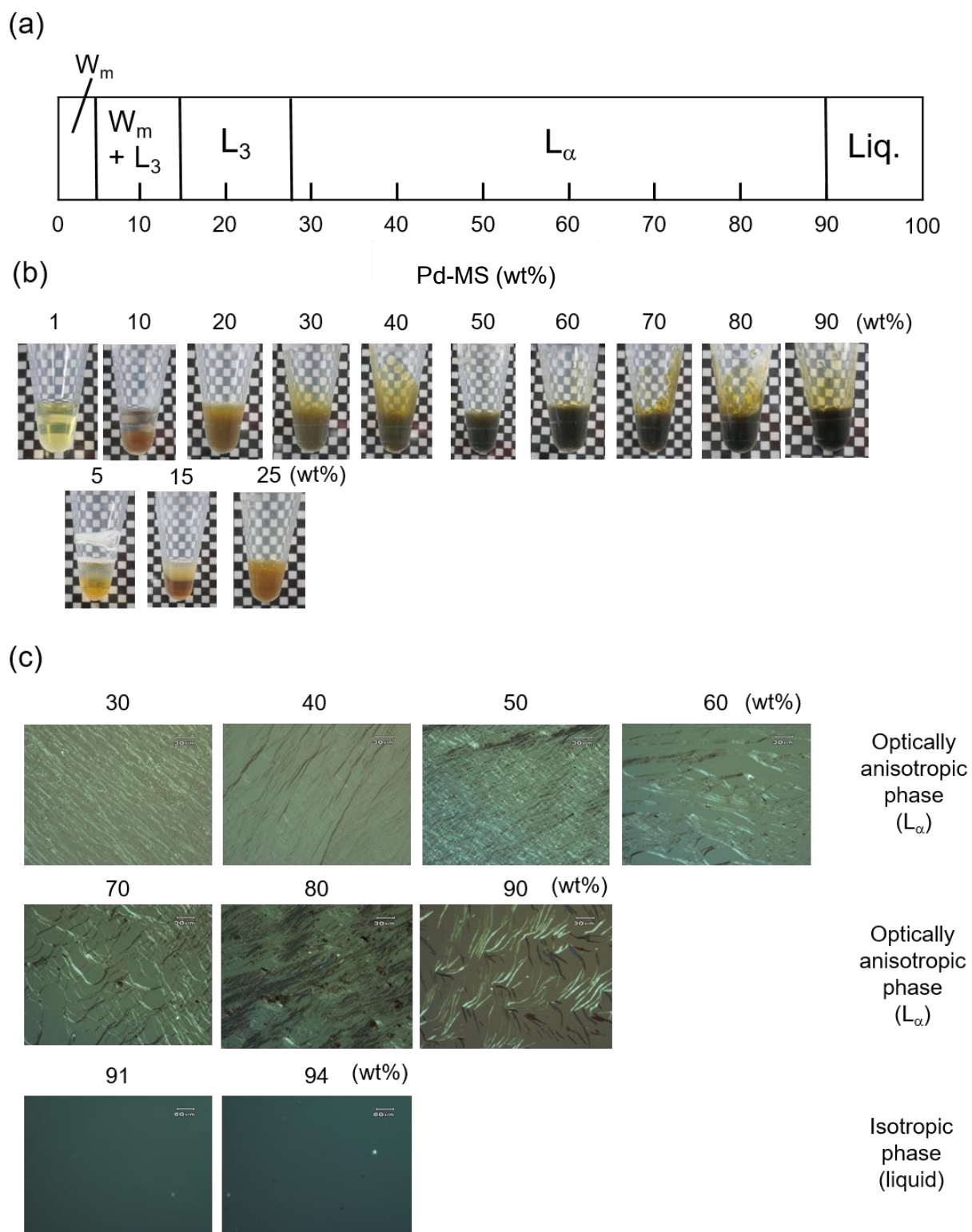


Fig. S13 (a) Two phase diagram of Pd-MS and (b) corresponding visual observations and (c) polarized optical microscopic images of each samples.