Electronic supplementary information (ESI)

The detailed experimental data for complex $[\mathbf{1}]^{2+}$.

Anal. Calcd for $[\mathbf{1}](BF_4)_2 \cdot 1.5H_2O$: C, 24.03; H, 3.78; N, 7.01. Found: C, 23.77; H, 3.78; N, 6.93. Visible-UV spectrum in H_2O [ν / 10^3 cm^{-1} ($\log \varepsilon$ / mol^{-1} dm^3 cm^{-1})]: 21.5 (4.0)^{sh}, 22.72 (4.10), 34.2 (4.3)^{sh}, 40.10 (4.57). ^{1}H NMR (DMSO, ppm from TMS): δ 2.11 (s, $-CH_3$), 2.76 (t, $-CH_2S$), 3.88 (t, $-CH_2N$). ^{13}C NMR (DMSO, ppm from TMS): δ 18.13 ($-CH_3$), 32.35 ($-CH_2S$), 56.79 ($-CH_2N$), 173.31 (-C=). MS(ES, H_2O): m/z = 499 for $[Ag_2\{Ni(L)\}_3]^{2+}$.

The detailed experimental data for complexes $[\mathbf{2}]^{2+}$.

Anal. Calcd for $[\mathbf{2}](BF_4)_2$: C, 26.81; H, 3.94; N, 7.82. Found: C, 26.67; H, 3.93; N, 7.90. Visible-UV spectrum in H_2O [ν / 10^3 cm^{-1} ($\log \varepsilon$ / mol^{-1} dm^3 cm^{-1})]: 21.5 (4.2)^{sh}, 22.68 (4.20), 34.1 (4.3)^{sh}, 39.81 (4.65). ^{1}H NMR (DMSO, ppm from TMS): δ 2.06 (s, $-CH_3$), 2.74 (t, $-CH_2S$), 3.83 (t, $-CH_2N$). ^{13}C NMR (DMSO, ppm from TMS): δ 17.99 ($-CH_3$), 32.29 ($-CH_2S$), 57.02 ($-CH_2N$), 172.17 (-C=). MS(ES, H_2O): m/z = 499 for $[Ag_2\{Ni(L)\}_3]^{2+}$ (48 %), m/z = 629 for $[Ag\{Ni(L)\}_2]^{+}$ (100 %).

The detailed experimental data for $[\mathbf{3}]^{4+}$.

Anal. Calcd for $[\mathbf{3}](BF_4)_4 \cdot H_2O$: C, 25.63; H, 3.84; N, 7.47. Found: C, 25.62; H, 3.77; N, 7.55. Visible-UV spectrum in H_2O [ν / 10^3 cm^{-1} ($\log \varepsilon$ / mol^{-1} dm^3 cm^{-1})]: 21.5 (5.4)^{sh}, 22.67 (5.42), 34.0 (4.6)^{sh}, 39.67 (5.42). ^{1}H NMR (DMSO, ppm from TMS): δ 2.08 (s, $-CH_3$), 2.75 (t, $-CH_2S$), 3.85 (t, $-CH_2N$). ^{13}C NMR (DMSO, ppm from TMS): δ 18.05 ($-CH_3$), 32.32 ($-CH_2S$), 56.94 ($-CH_2N$), 172.67 (-C=). MS(ES, H_2O): m/z = 499 for $[Ag_2\{Ni(L)\}_3]^{2+}$ (100 %), m/z = 629 for $[Ag\{Ni(L)\}_2]^{+}$ (78 %).

Anal. Calcd for $[\mathbf{3}](BF_4)_2(PF_6)_2$: C, 24.70; H, 3.63; N, 7.20. Found: C, 24.89; H, 3.63; N, 7.37.