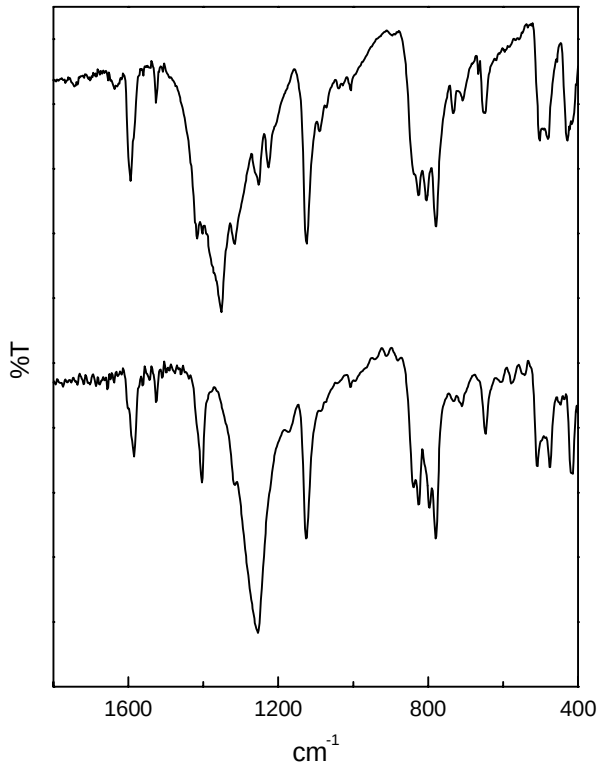
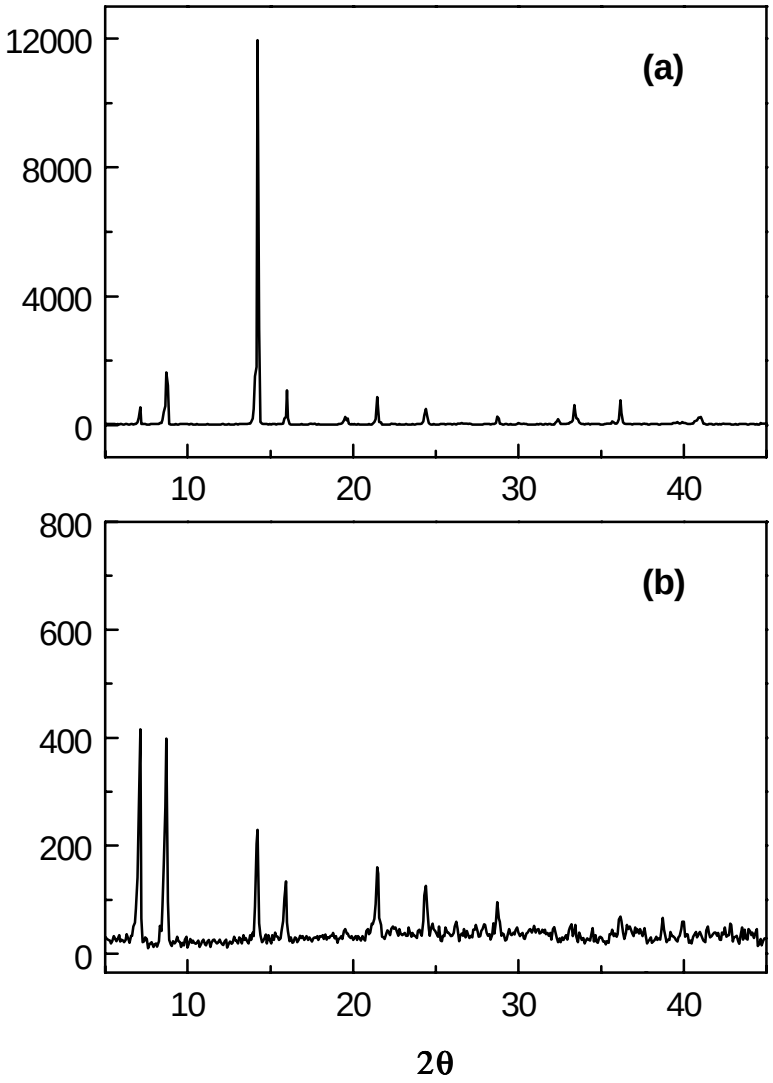
<Supporting Information>



SFig 1. IR spectra of $[Ag_3\mathbf{L}_4](NO_3)_3 \cdot H_2O$ (**1**) (top) and $[Ag_3\mathbf{L}_4](NO_2)_3$ (bottom) by prepared by anion exchange



SFig 2. IR spectra of $[Ag_3\mathbf{L}_4](NO_2)_3$ (a) by the direct reaction and $[Ag_3\mathbf{L}_4](NO_2)_3$ (b) prepared by the anion exchange of $[Ag_3\mathbf{L}_4](NO_3)_3$ with NO_2^-