Electronic Supplementary Information (Figure S1 to S4)
Figure S1

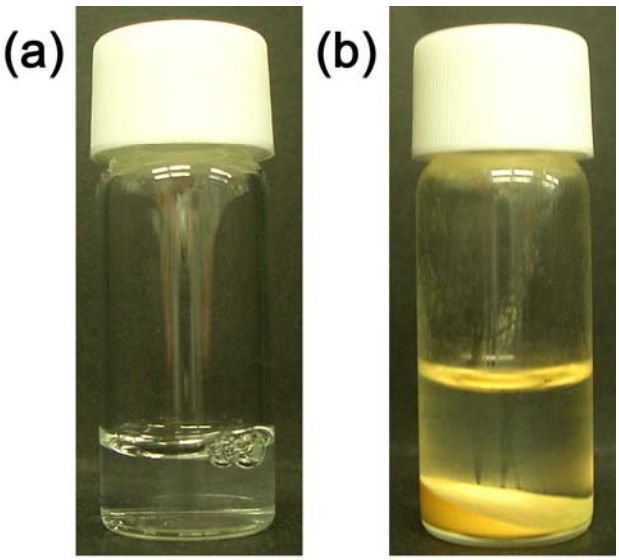

Figure S1 Precursor solutions for the formation of LLC films. The each composition of the solutions was 0.5 M H_2SO_4, CTAB, and either (a) $Pt(NH_3)_4Cl_2$ or (b) $H_2PtCl_6 \cdot 6H_2O$.

Figure S2

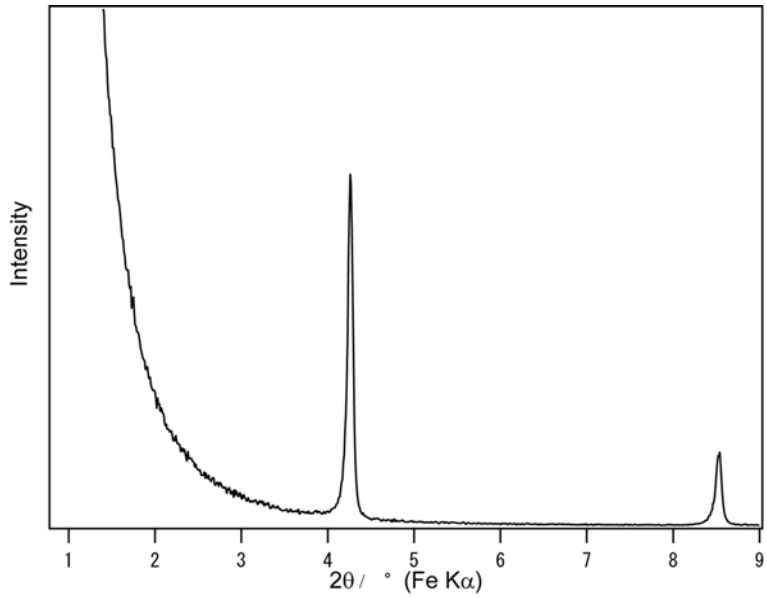

Figure S2 θ-2θ XRD pattern of the LLC film prepared from the precursor solution (H_2O, CTAB, and $Pt(NH_3)_4Cl_2$).

Figure S3

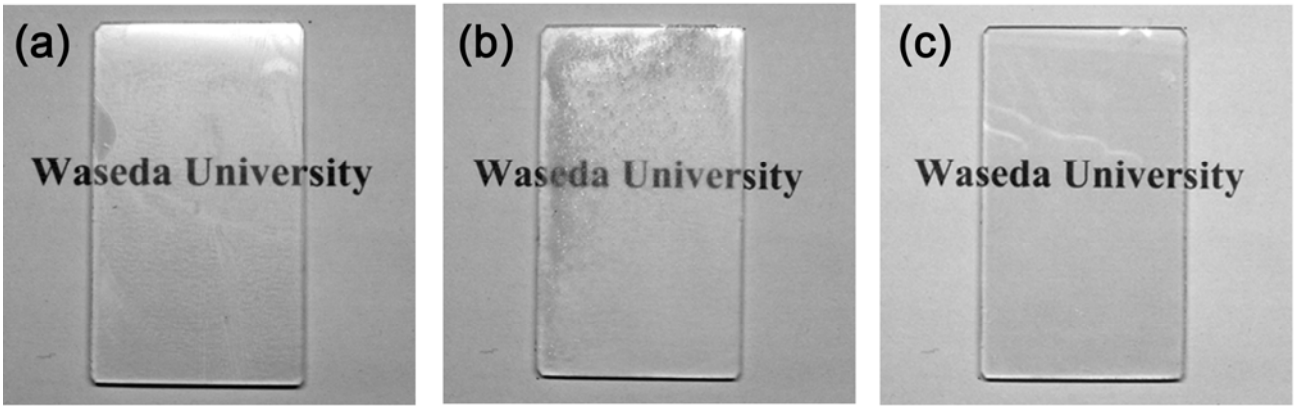

Figure S3 Photographs of the glass substrates at several stages. (a) LLC film, (b) 2 days after dip-coating with the SBH solution, and (c) after washing with water. The composition of the precursor solution was H_2O, CTAB, and $Pt(NH_3)_4Cl_2$.

Figure S4

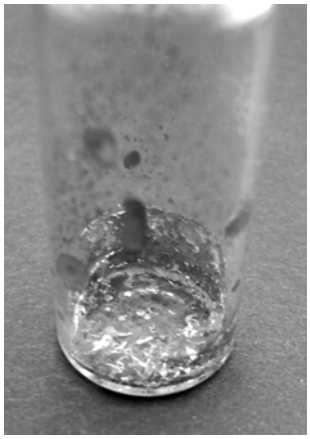

Figure S4 Photograph of deposited Pt prepared in the solution phase of the precursor solution containing H_2SO_4 and $Pt(NH_3)_4Cl_2$ but without CTAB.