

Fig. S1 TEM images of the cubic $Ia\bar{3}d$ KIT-6 silica taken along a) [111], b) [531], c) [100] and d) [311].

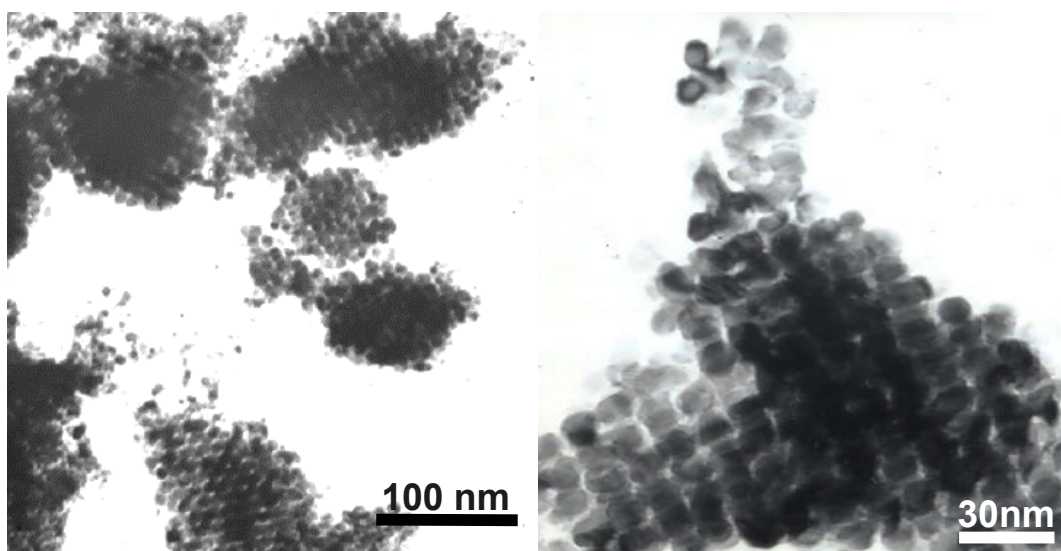


Fig. S2 TEM overviews of the platinum replica network obtained after dissolution of KIT-6 (left TEM image is the expanded area of detail in Fig. 1b).

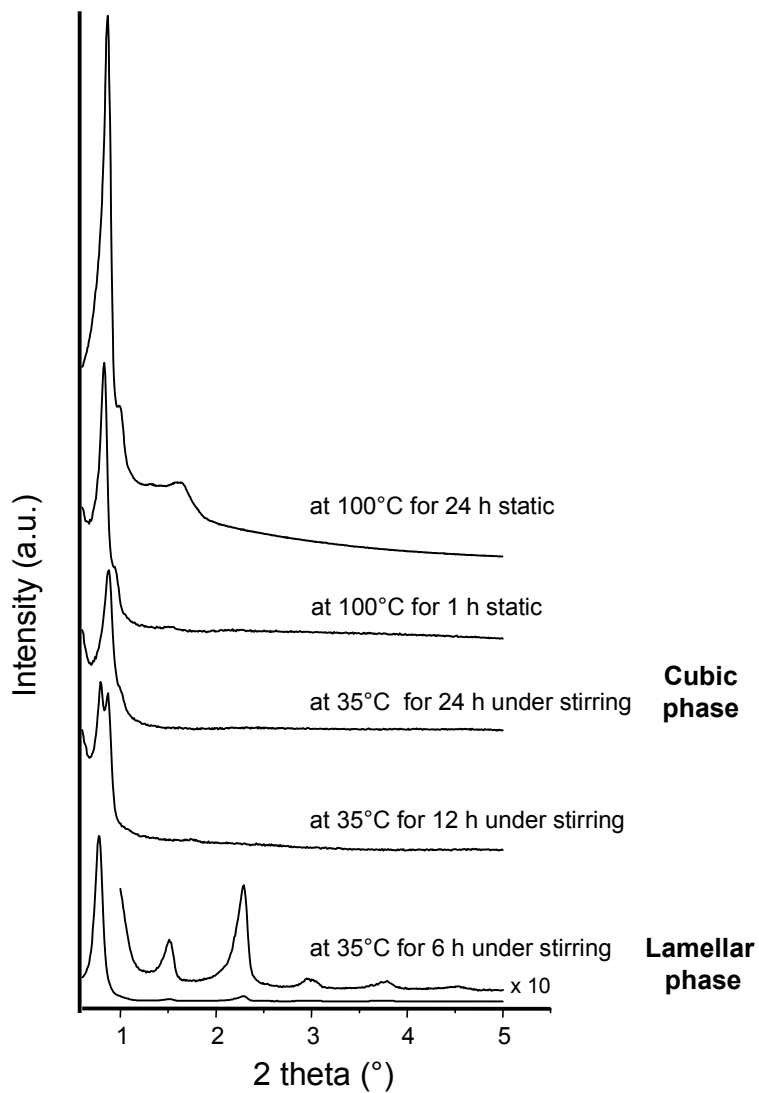


Fig. S3 Evolution of the low angle XRD diffraction pattern obtained for the mesostructure during formation of the cubic $Ia3d$ phase, as function of time and temperature.