# Overgrowth of Pt Dendritic Aggregates on Conductive Tungsten Oxide Nanowires

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Pt dendritic aggregates overgrown on conductive tungsten oxide nanowires were prepared by simple colloidal method. Without tungsten oxide nanowires, no dendritic aggregates were synthesized. Thus, tungsten oxide nanowires play an ciritcal role in the formation of Pt dendritic aggregates. We have studied the effect of tungsten oxide nanowires on the overgrowth of Pt dendritic aggregates using XRD, HRTEM, and crystal simulation. These experimental results suggest that growth mechanism of Pt dendritic aggregates follows an overgrowth mechanism, rather than a random aggregation of Pt nanoparticles.