

## Preparation of highly dispersed precious metal catalysts on carbon supports for electrochemical reactions and catalysis

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In the past decades, nanoparticle catalysts supported on carbon materials have great attentions due to their potentials for use in fundamental researches and practical processes. In many catalytic reactions, it has been known that their performances would be highly influenced by the active surface area of the supported metal components. Thus, there has been a lot of effort to synthesize highly dispersed nanoparticles on support materials. In this work, we prepared highly dispersed precious metal catalysts including Pt, and Rh on carbon supports. The prepared catalysts were applied in several electrochemical and catalytic reactions including oxidation, reduction, hydroformylation and others. The highly dispersed metal catalyst showed the considerable performances for practical applications and these results opened new perspectives for the uses of carbon-supported metal catalysts in catalysis.