

过生长法制备准凹面体状 Pt-Ni 纳米合金及其甲醇氧化电催化性能

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Synthesis of Quasi-Concave Pt-Ni Nanoalloys *via* Overgrowth and Their Catalytic Performance towards Methanol Oxidation

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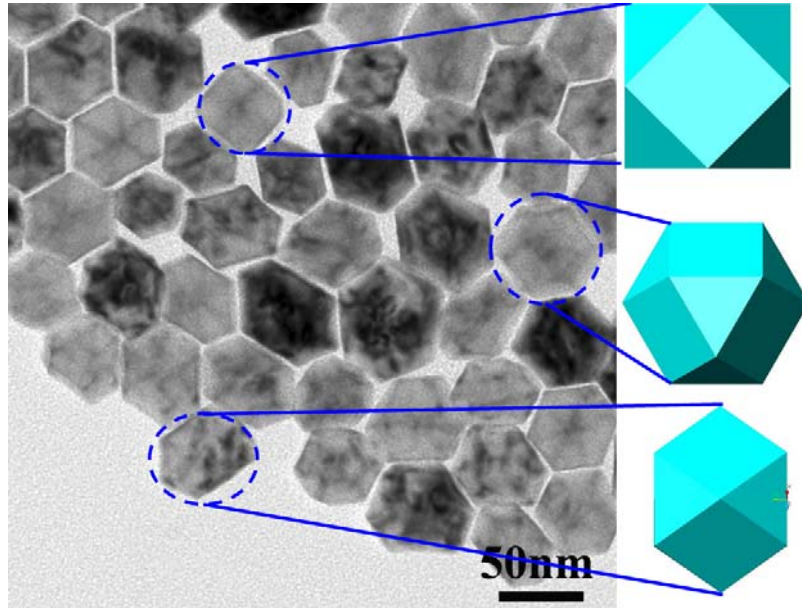


Fig.S1 TEM image of the intermediates to the concave products collected at 15 min
 The projections oriented in different directions reveal the cuboctahedral feature

It is known that the cuboctahedron is bounded by six square $\{100\}$ and eight triangle $\{111\}$ facets. If the electron beam was aligned to be perpendicular to $\{001\}$, the projection should be a two-dimensional square-shaped projection as demonstrated by the top-right 3D model. With $[110]$ as the viewing direction, the projection changes into hexagon (the 3D model in the middle-right), which is made of two $\{100\}$ and four $\{111\}$ facets. While with $\langle 111 \rangle$ as the zone axis, the projection exhibits as an equilateral hexagon constructed by the edges of $[100]$ and $[110]$ (down-right 3D model).