

Gold Nanodendrimer Duplicated by Ionic-Polymer Cluster Template for Energy Storage Applications

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We report a large-scale synthesis of gold nanodendrimer structures by using an ionic-cluster molecular template. Replicating the ionic cluster network in the liquid phase, tripod-shaped gold nanorods were initially synthesized with diameters of 6 nm and lengths of 12 - 13 nm. They further grew branch to branch interconnected to form nanodendrimer structures in the micrometer scale. We demonstrate that the nanodendrimer can be used as energy storage device with a high specific energy density.