

Covalent decoration of reduced graphene oxide with  
dendrimer-encapsulated nanoparticles  
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Here, we describe a method for preparing nanoparticle-decorated reduced graphene oxide (RGO) nanocomposite, on which size-monodisperse nanoparticles (with diameter of less than 2 nm) are uniformly distributed with preservation of their original size, via covalent immobilization of dendrimer-encapsulated nanoparticles (DENs). This method allows universal assembly of multiple DENs with different sizes and compositions on the same RGO sheet with good control over particles sizes in the range of 1 to 2 nm. We also show the superior electrocatalytic activity of the DEN-RGO nanocomposite for the reduction of O<sub>2</sub>.

**Reference**

[1] *Chem. Commun.*, 2012, **48**, 9233-9235