**ABSTRACT**

The electrochemical performance of reduced graphite oxide (RGO) anchored with nanoSn particles, which are synthesized by a reduction method, is presented. The Sn nanoparticles are uniformly distributed on the surface of the RGO matrix and the size of the particles is approximately 5–10 nm. The uniform distribution effectively accommodates the volume expansion experienced by Sn particles during cycling. The observed electrochemical performance (97 % capacity retention) can be ascribed to the flexible RGO matrix with uniform distribution of Sn particles, which reduces the lithium‐ion diffusion path lengths; therefore, the RGO matrix provides more stability to the Sn particles during cycling. Such studies on Sn nanoparticles anchored on RGO matrices have not been reported to date.