**ABSTRACT**

Research on high performance electrode materials is significant for further development of sodium ion batteries (NIBs). The Sb2O4 anode can be employed as a promising anode material for NIBs owing to its high theoretical capacity of 1227 mAhg–1. In this paper, we report the Sb2O4@rGO nanocomposite anode for NIBs which exhibit good cyclability and rate capability due to the formation of wrinkled rGOnanosheets during cycling. Well-formed nanowrinkles act as a template for anchoring Sb2O4 particles during cycling and effectively alleviate the strain due to the volume expansion. The improved electrochemical performance is attributed to the shorter Na+ ion diffusion path length from the small nanoparticles and good electrons as well as ion transport from the intimate contact between the active Sb2O4 particles and rGO matrix. At a current density of 0.1 Ag–1, it retains the 94.2% (890 mAhg–1) of initial reversible capacity after 100 cycles. Over prolonged cycling (after 500 cycles), the Sb2O4@rGO electrode still delivers a reversible capacity of 626 mAhg–1 at a current density of 0.6 Ag–1. These significant results offer hope for the exploration of making high capacity anodes combined with a reduced graphene oxide matrix to alleviate the strain during cycling.