## **Supporting information**

## A nanocomposite of tin dioxide octahedral nanocrystals exposed with high-energy facets anchored on graphene sheets for high performance lithium-ion batteries

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Figure S1. SEM images of the SnO2/GS nanocomposite without the addition of PVP when the amount of HCl is 0.4 mL



Figure S2. TEM image of a  $SnO_2$  ONC viewed along the [1-1-3] direction and the corresponding SAED pattern (inset the  $SnO_2$  ONC enclosed by {332} facets projected along the same direction).