

Figure S1. SEM images of Sn/NSGr-5 (a), Sn/NSGr-7.5 (b), and Sn/NSGr-10 (c).

Table S1. Results of elemental analysis on C@Sn/NSGr-7.5 by EDS.

Element	Weight Ratio(%)	Atomic Ratio(%)
C	88.13	94.9
N	0.42	3.01
O	5.37	4.34
S	0.20	0.08
Sn	6.30	0.69

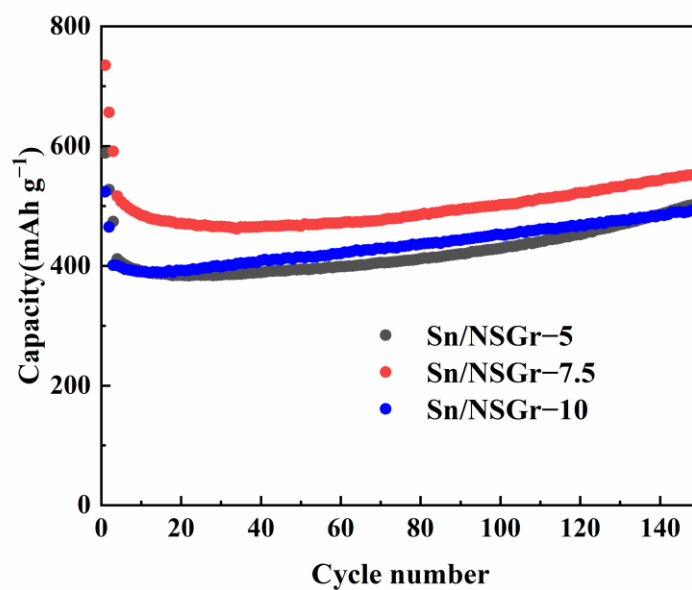


Figure S2. Cyclic properties of Sn/NSGr-5, Sn/NSGr-7.5 and Sn/NSGr-10 at 0.1 A g⁻¹.

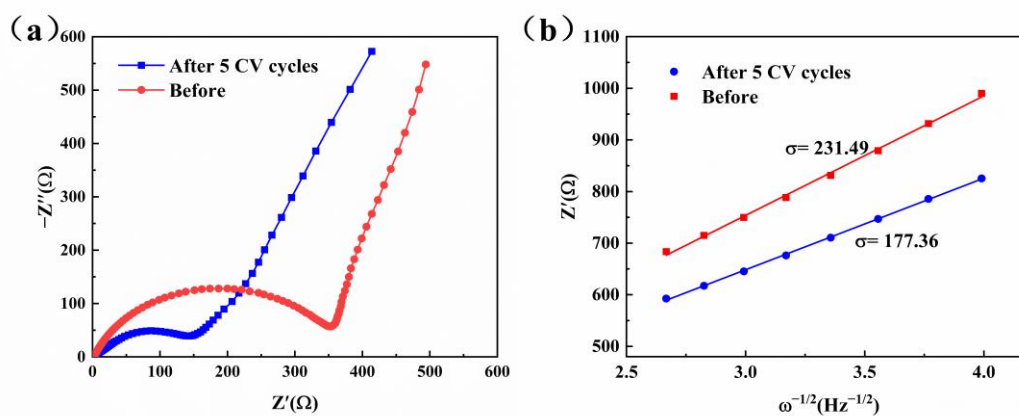


Figure S3. Nyquist plots before and after 5 CV cycles of C@Sn/NSGr-7.5 (a), the relation of the $Z' - \omega^{-1/2}$ curves in the low-frequency region of C@Sn/NSGr-7.5 (b).