

Supporting Information

Structural Modulation of Tin Nickellate Nanostructures Embedded in Reduced Graphene Oxide for High-Performance Asymmetric Supercapacitor

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Elemental Mapping Analysis

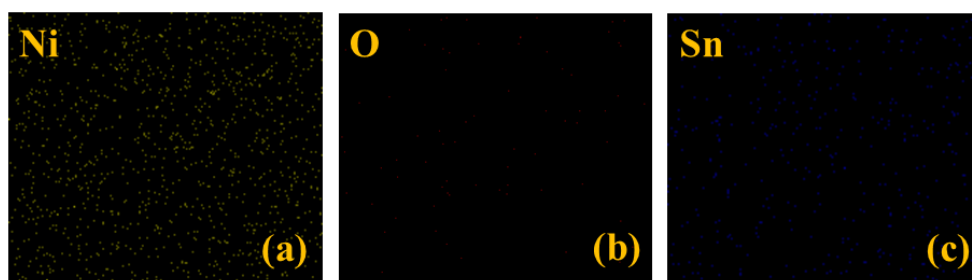


Fig. S1. Elemental Mapping of SNNPs

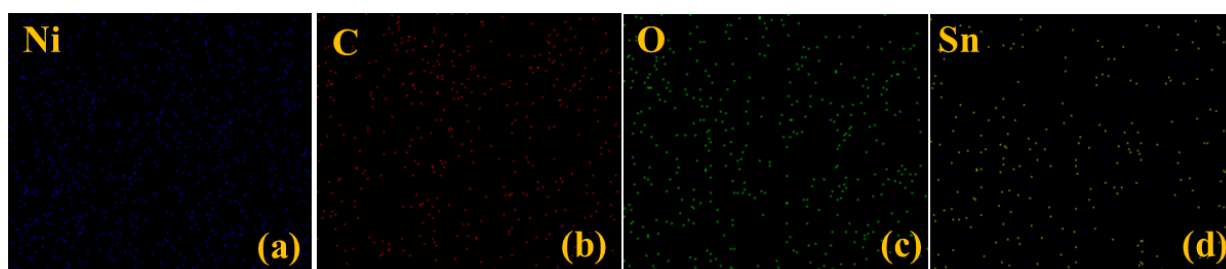


Fig. S2. Elemental Mapping of SNNPR-3

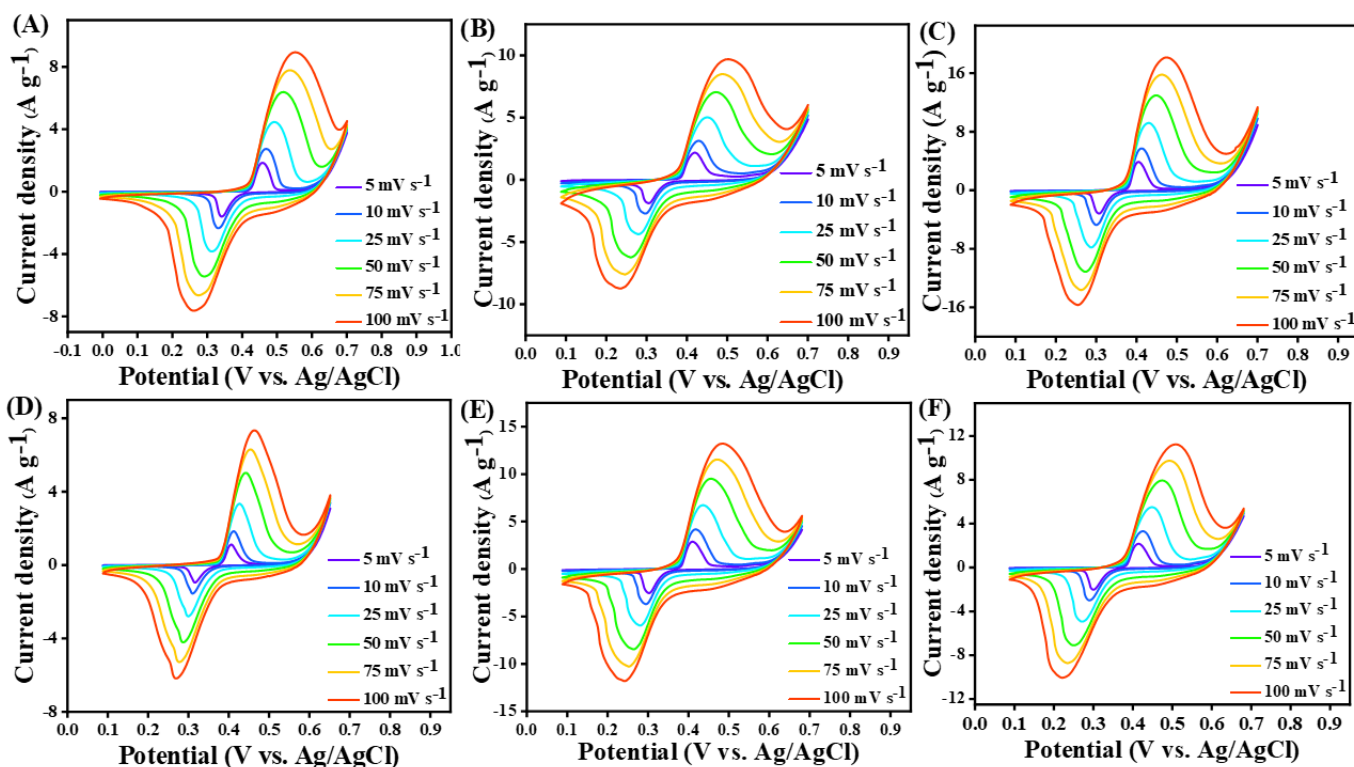


Fig. S3. Cyclic voltammograms of A. SNNPs, B. SNNPR-1, C. SNNPR-2, D. SNNPR-4, E. SNNPR-5 and F. SNNPR-6 in 3M KOH at varied scan rates

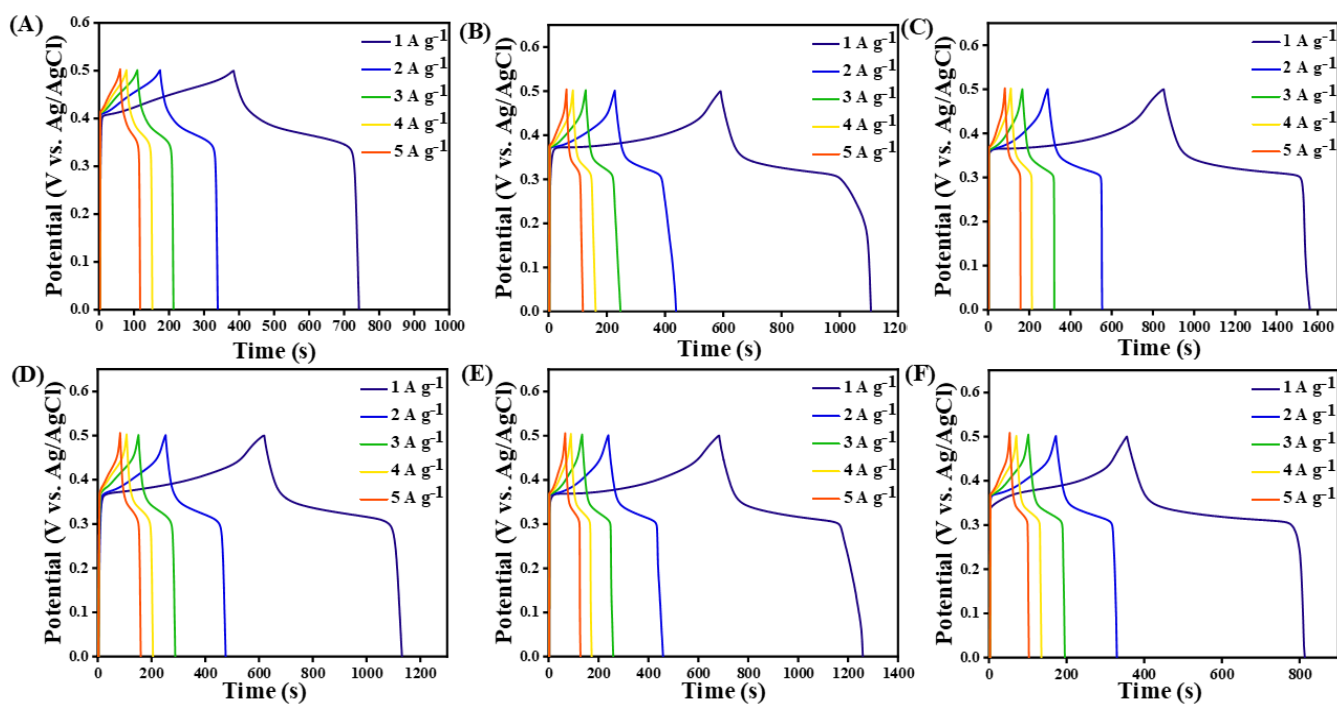


Fig. S4. Galvanostatic charge-discharge curves of A. SNNPs, B. SNNPR-1, C. SNNPR-2, D. SNNPR-4, E. SNNPR-5 and F. SNNPR-6 in 3M KOH at varied current densities.

Table. S1. Represents the preparation condition of all the six types of SNNPR electrode materials.

Active Material	SNNPs	rGO
SNNPR-1	98%	2%
SNNPR-2	96%	4%
SNNPR-3	94%	6%
SNNPR-4	92%	8%
SNNPR-5	90%	10%
SNNPR-6	88%	12%

Table. S2. Comparison of Specific capacitance of the synthesized electroactive material in Three-electrode assembly at identical conditions

Name of the Electroactive material	Specific Capacitance (F g ⁻¹)	Specific Capacitance (mAh g ⁻¹)
SNNPs	720	100
SNNPR-1	1030	143
SNNPR-2	1416	196
SNNPR-3	1626	225
SNNPR-4	1038	143
SNNPR-5	1150	159
SNNPR-6	900	127

Table. S3. Specific capacitance, Energy density and Power density of SNNPR-3//AC ASC device at different current densities from 1 to 5 A g⁻¹

Current density (A g ⁻¹)	Specific Capacitance (F g ⁻¹)	Energy density (Wh kg ⁻¹)	Power density (W kg ⁻¹)
1	264	62.1	2600
2	264	62.1	5200
3	258	60.6	7800
4	233	54.8	10400
5	230	54.1	13000

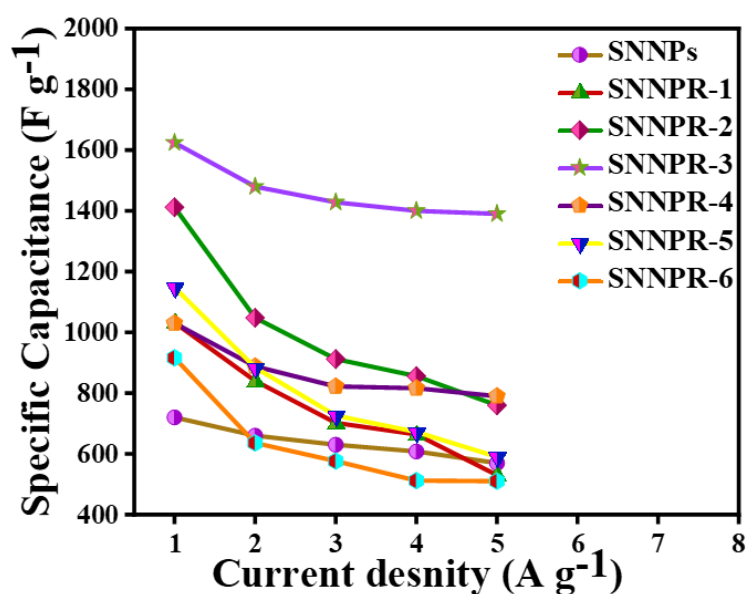


Fig. S5. Plot of Current density and specific capacitance for all SNNPs based electrodes.

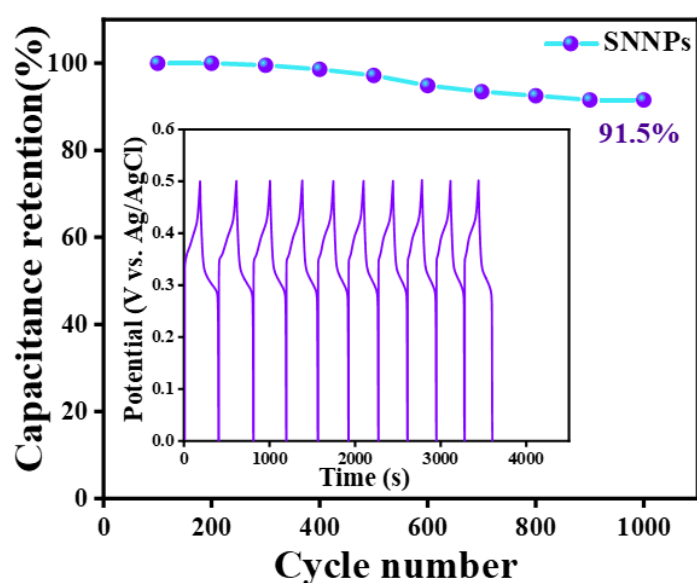


Fig. S6. Retention capacitance of SNNPs for 1000 cycles.