

Supporting Information

Using Highly Flexible SbSn@NC Nanofibers as Binderless Anodes for Sodium-Ion Batteries

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Supplemental Figures

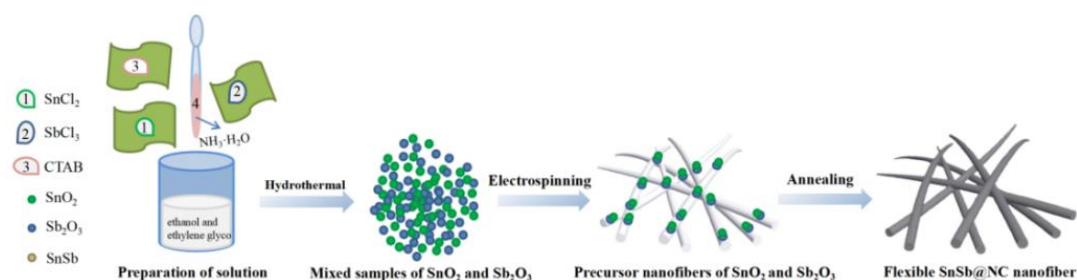


Figure.S1 Schematic diagram synthesis of flexible SnSb carbon composite



Figure.S2 The SEM of the mix sample for SnO_2 and Sb_2O_3 nanomaterials

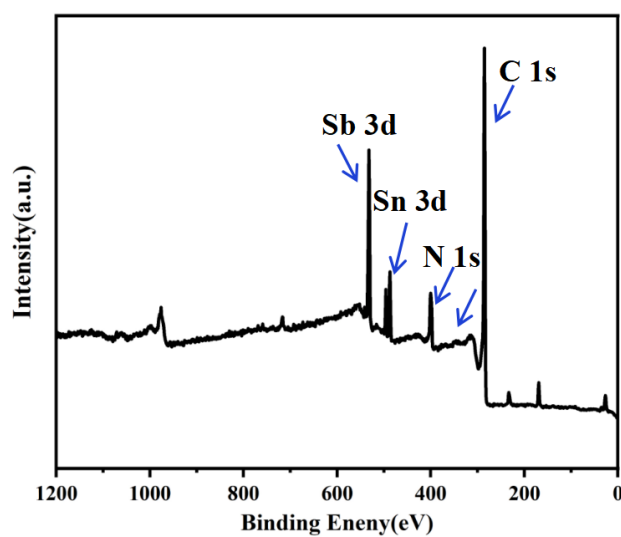


Figure.S3 The low-resolution XPS spectra of SnSb@NC-700

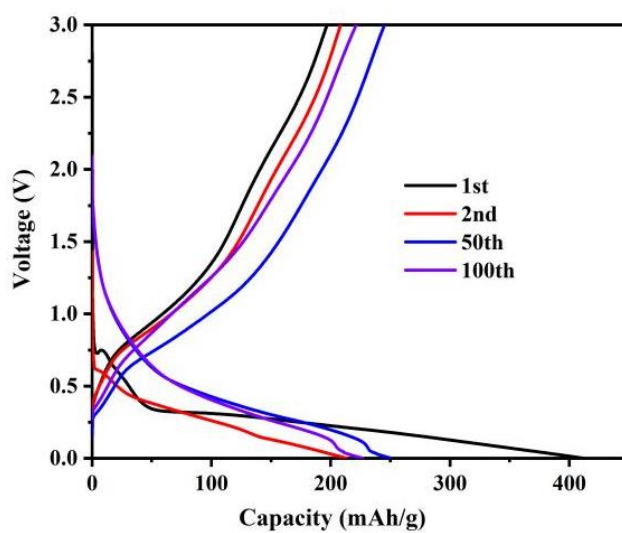


Figure.S4 The charge/discharge curve of SnSb@NC-700 electrode at different cycles (1st, 2nd, 50th, and 100th)

Supplemental Tables

Table S1 Compare with other SnSb, Sb, Sn related flexible materials reported in storage device

Materials	Current density	Retention capacity	Cycle number	Reference
SnSb@NC	0.1 A g ⁻¹	240 mAh g ⁻¹	100	this work
SbSn@NCNFs	0.5 A g ⁻¹	304 mAh g ⁻¹	100	[25]
Sn CNFs	2 C	150 mAh g ⁻¹	100	[26]
Sb/Sb ₂ O ₃ -C	0.1 A g ⁻¹	385.6 mAh g ⁻¹	500	[41]
SnSb@CNF/CNT	0.1 A g ⁻¹	210 mAh g ⁻¹	700	[42]

Table S2 The fitted impedance parameters of the material

Materials	Rs(Ω)	Rct(Ω)
SnSb@NC-600	21.57	1844
SnSb@NC-700	21.42	1230

Reference

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- [41] Yang, L.; Yang, B.; Chen, X.; Wang, H.; Dang, J.; Liu, X. Bimetallic alloy SbSn nanodots filled in electrospun N-doped carbon fibers for high performance Na-ion battery anode. *Electrochim. Acta* **2021**, *389*, 138246. <https://doi.org/10.1016/j.electacta.2021.138246>.
- [42] Song Z, Wang G, Chen Y, Lu Y., Wen Z. In situ three-dimensional cross-linked carbon nanotube-interspersed SnSb@CNF as freestanding anode for long-term cycling sodium-ion batteries. *Chem. Eng. J.*, 2023, 463: 142289. <https://doi.org/10.1016/j.cej.2023.142289>