

**Vanadium nitride nanoparticle decorated N-doped carbon
nanotube/N-doped carbon nanosheet hybrids via a C₃N₄ self-
sacrificing method for electrochemical capacitors**

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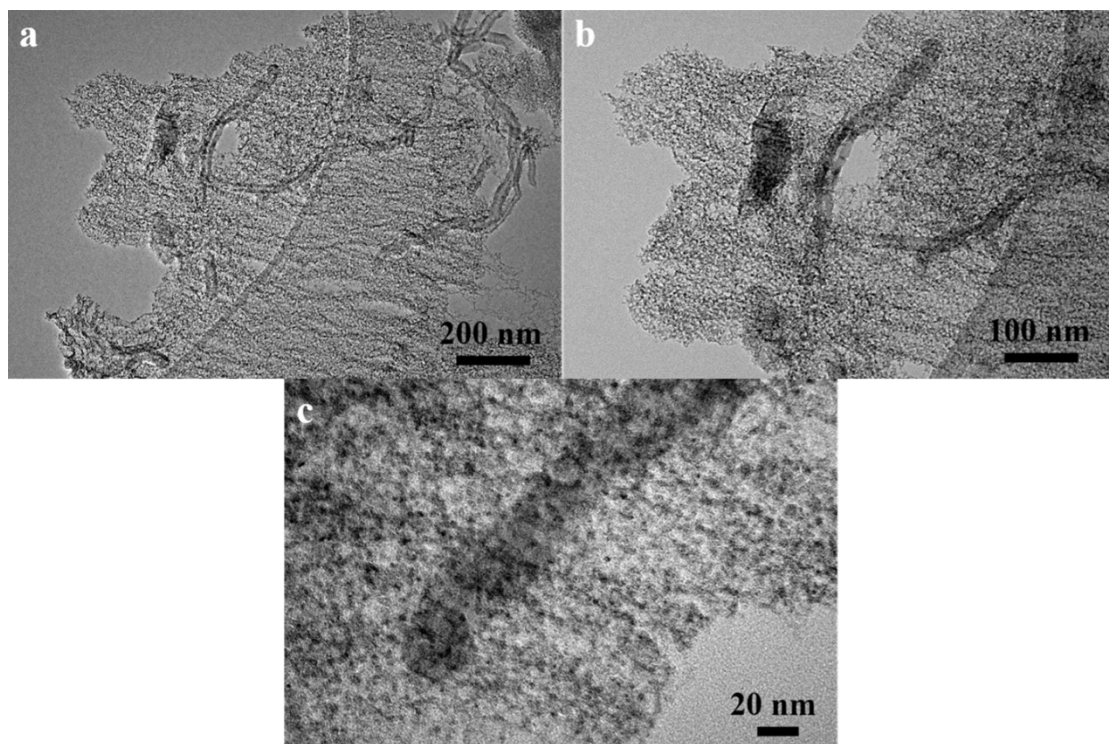


Fig.S1 TEM images of VN/NCNT/NCN-2 hybrids

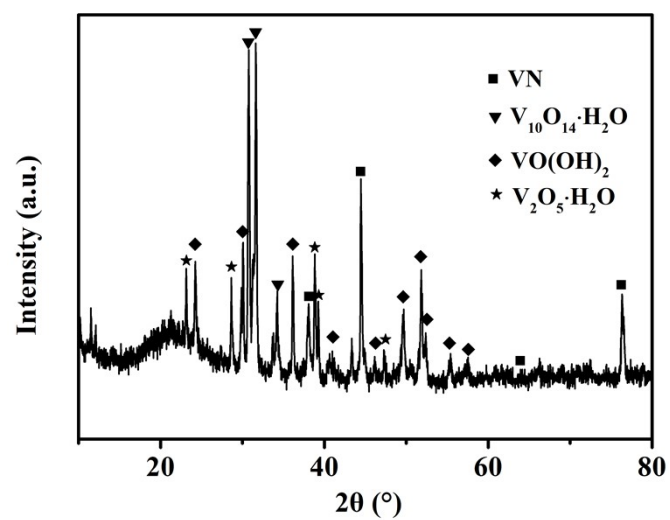


Fig. S2 XRD pattern of VN/NCNT/NCN-2 electrode film after 5000-cycle charge-discharge tests

Table S1 Summary of the cyclic stability of recently reported VN, vanadium-based/carbon hybrids, other supercapacitor electrode materials

| Materials | Electrolytes | Current density | Cyclic cycles | Cs retention |
|---|----------------|----------------------------|--------------------|--------------|
| VN hollow fiber [1] | 2 M KOH | 5 A g ⁻¹ | 1000 cycles | 54% |
| VN nanoflake [2] | 2 M KOH | 1 A g ⁻¹ | 1000 cycles | 66% |
| Mesoporous VN [3] | 6 M KOH | 10 A g ⁻¹ | 5000 cycles | 83% |
| VN/N-graphene-700 [4] | 2 M KOH | 2 A g ⁻¹ | 2000 cycles | 73.9% |
| VN nanoparticles/carbon sheet [5] | 1 M KOH | 1 A g ⁻¹ | 5000 cycles | 75.8% |
| VN/PEDOT [6] | KOH/PVA | 10 A g ⁻¹ | 5000 cycles | 91.5% |
| Graphene-NiFe ₂ O ₄ nanocomposite [7] | 2 M KOH | 8 A g ⁻¹ | 10000 cycles | 94% |
| Graphene-NiCo ₂ O ₄ Nanorod [8] | 2 M KOH | 8 A g ⁻¹ | 10000 cycles | 94% |
| this work | 6 M KOH | 10 A g⁻¹ | 5000 cycles | 91% |

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