

Supporting information

Supercapacitive performance of C-axis preferentially oriented TiO₂
nanotube arrays decorated with MoO₃ nanoparticles

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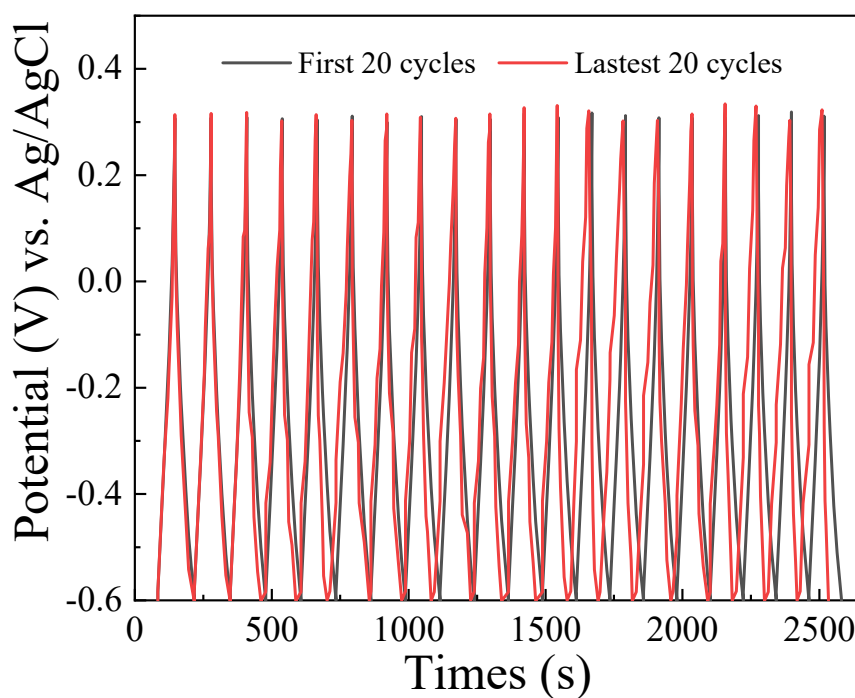


Figure 1. The first 20 and last 20 cycles charge-discharge curves for MoO₃-p-MTNAs electrode at current density of 1 A/g.

The cycling life test for MoO₃-p-MTNAs film electrodes were carried out through a cyclic galvanostatic charge-discharge process over 2000 cycles at current density of 1 A/g. The charge-discharge curves are more or less the same as that of the first cycle after 2000 cycles of measurement. This result illustrates the p-MTNAs electrode has a good capacitance recovery and excellent long-term stability.

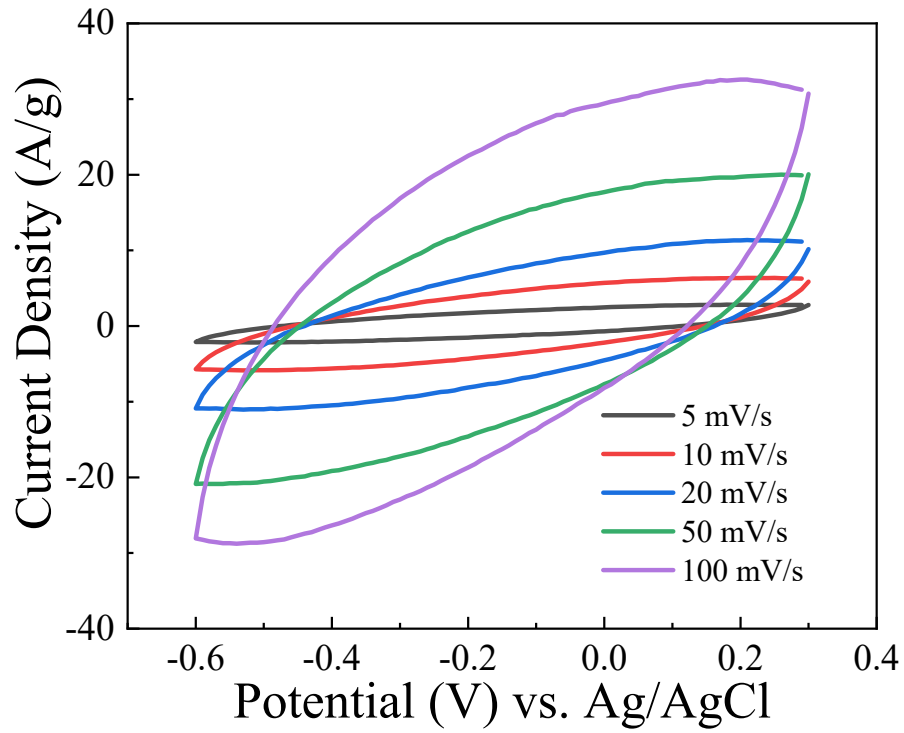


Figure 2. CV curves of Symmetric Supercapacitor (SSC) device performance at different scan rates.

The SSC had consisted of two MoO_3 -p-CTNTAs layers as the positive and negative electrodes with PVA/KCl gel electrolyte. The CV curves at different scan rates (5–100 mV/s) in voltage window 0–1 V are shown in Figure 3. With increasing scan rate, the CV curves retain their quasi-rectangular shape without any redox peak, which implies that the fabricated device performs as an EDLC.