Supporting Information

Highly Transparent and Flexible Nanopaper Transistors

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A transparent oxide conductor (TCO), aluminum-doped zinc oxide (AZO), was deposited on nanopaper. Fig. S1 shows the surface morphology of AZO films deposited on nanopaper surface with atomic layer deposition (ALD). We found that AZO on nanopaper is not a good choice of the electrode materials for our flexible due to its cracking during device fabrication processes (Figure S1). We expect to see similar results from ITO film since both materials are brittle oxides.

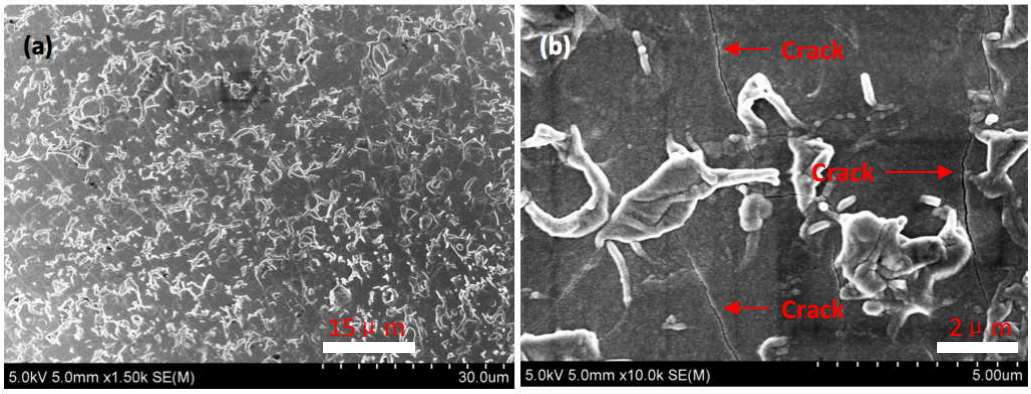


Fig. S1. (a) and (b) SEM image of AZO by ALD on nanopaper surface. The thickness of AZO is 100 nm.

We have recently demonstrated that highly conductive CNT patterns can be fabricated on nanopaper with a simple drawing method (figure S2). No obvious change in conductivity was observed after CNT-paper was bent.

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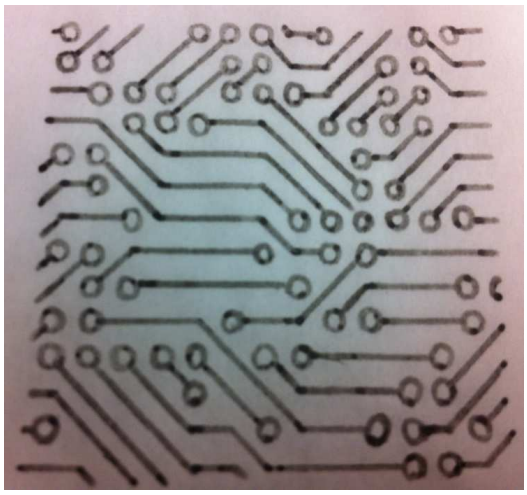


Figure S2. Conductive CNT patterns drawn by a ballpoint pen on nanopaper.

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