## **Electronic Supplementary Information**

## Morphology dependent electrical conduction and breakdown in single $TiO_2$ nanotube

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Fig. S1. XRD patterns of (a) EGTNT and (b) DMTNT confirming the anatase phase of both types of nanotube. The peaks are matched with JCPDS card no. 01-071-1169 and 01-073-1764 respectively for matching with anatase phase.