

Supplementary Materials

Distinct DNA Conformations during Forward and Backward Translocations through a Conical Nanopore

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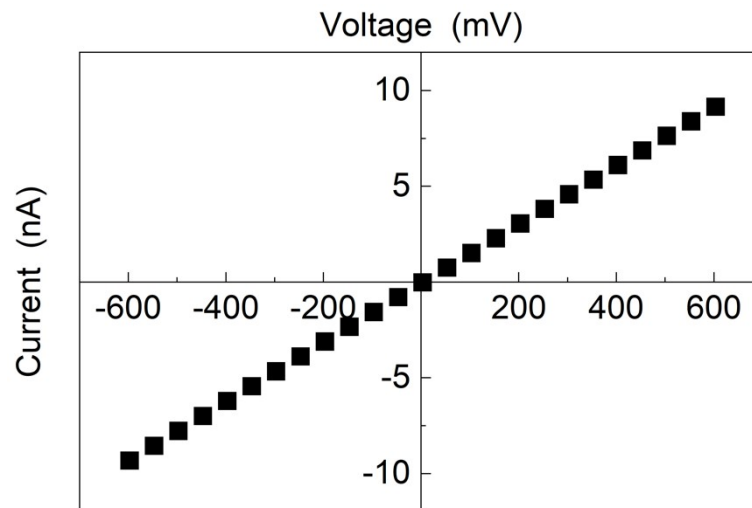


Figure S1. I-V curve measurement for the nanopore used in experiments. Prior to sample measurements, we scanned the current-voltage characteristic of nanopores from -600 mV to 600 mV to determine the pore diameter.

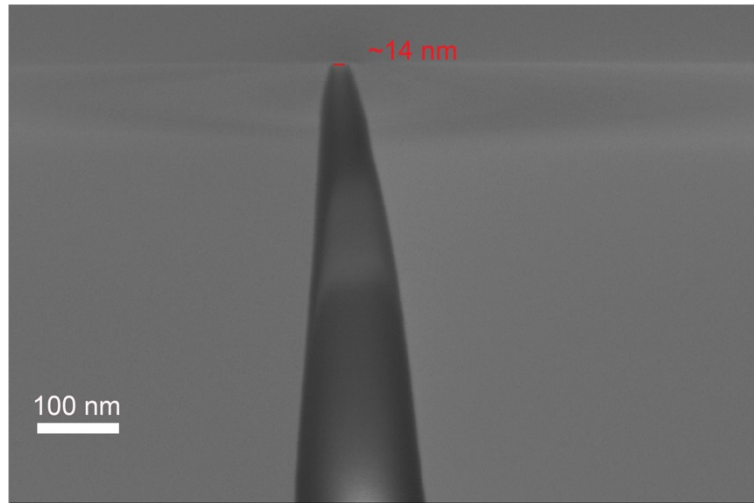


Figure S2. SEM characterization of the nanopore size. After subtracting the thickness of the nanopore wall, we obtain a nanopore diameter of approximately 14 nm.

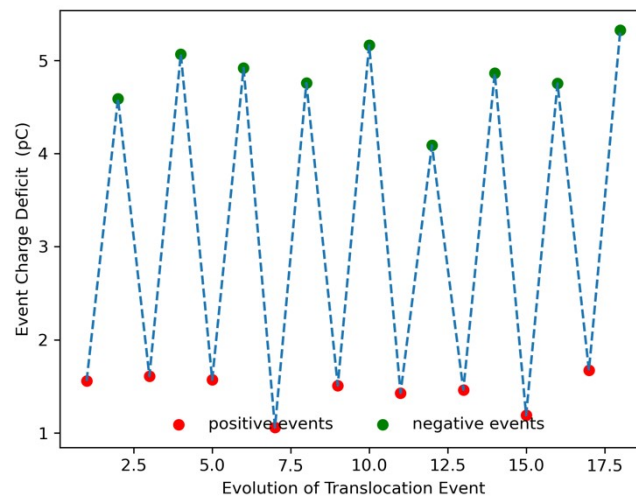


Figure S3. Event charge deficit (ECD) evolution during ping-pong process. The sample was lambda DNA. We show ECD value as a function of translocation event index during the ping-pong process. ECD values almost were the same for both forward translocation events and backward ones, indicating that these events were full translocation.

Table S1. Values of current blockade levels in the all-current point histograms for the forward and backward translocations.

Current blockade level	Forward translocation	Backward translocation
1	-0.16 nA	-0.10 nA
2	-0.31 nA	-0.20 nA
3		-0.31 nA
4		-0.42 nA