Movie 1. Translocation of single stranded DNA through a nanopore in Si_3N_4.
Simulation conditions: Electrical field of 1.3×10^9 V/m generates a voltage bias of 21 V across the membrane; 1.3±0.1 nm diameter pore; 5.2 nm thick membrane; single stranded $(dC)_{20}$, 1M solution of KCl; 40125 atoms simulated; total simulation time is 1.3 ns; NvT ensemble.

Movie 2. Translocation of double stranded DNA through a nanopore in Si_3N_4.
Simulation conditions: Electrical field 2.7×10^8 V/m corresponding to the voltage bias of 4.4 V; 2.4±0.2 nm diameter pore; 5.2nm thick membrane; double stranded $(dC)_{20}$, 1M solution of KCl; 85207 atoms simulated; total simulation time is 3.7 ns; NvT ensemble.

Movie 3. Slow electrophoresis of double stranded DNA through a nanopore in Si_3N_4.
Simulation conditions: Electrical field 8.7×10^7 V/m corresponding to the voltage bias of 1.4 V; 2.4±0.2 nm diameter pore; 5.2nm thick membrane; double stranded $(dC)_{20}$, 1M solution of KCl; 85207 atoms simulated; total simulation time is 49.5 ns; NvT ensemble.

Movie 4. Spontaneous unzipping of the terminal DNA base pair inside a Si_3N_4 nanopore.
Simulation conditions: Electrical field 8.7×10^6 V/m corresponding to the voltage bias of 0.14 V; 2.4±0.2 nm diameter pore; 5.2 nm thick membrane; double stranded $(dC)_{20}$, 1M solution of KCl; 85207 atoms simulated; total simulation time is 26 ns; NvT ensemble.

Movie 5. DNA it pulled sidewise inside the pore by an applied electrical field.
Simulation conditions: Electrical field 8.7×10^7 V/m corresponding to the voltage bias of 1.4 V; 2.4±0.2 nm diameter pore; 5.2 nm thick membrane; double stranded $(dC)_{20}$, 1M solution of KCl; 85207 atoms simulated; total simulation time is 3 ns; NvT ensemble.

Movie 6. DNA it pulled sidewise inside the pore by a weak electrical field.
Simulation conditions: Electrical field 2.7×10^7 V/m corresponding to the voltage bias of 0.44 V; 2.4±0.2 nm diameter pore; 5.2 nm thick membrane; double stranded $(dC)_{20}$, 1M solution of KCl; 85207 atoms simulated; total simulation time is 4 ns; NvT ensemble.