

Abstract Submitted  
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**The Statistics of DNA Capture and Re-Capture by Solid-State Nanopores**<sup>1</sup> MIRNA MIHOVILOVIC, ERIN TEICH, NICK HAGERTY, JASON CHAN, DEREK STEIN, Brown University — We studied repeated electrophoretic translocations of the same DNA molecule through  $\sim 10$  nm nanopores using the voltage-reversal re-capture technique. Correlations were observed in the folding conformations of molecules re-captured within the Zimm relaxation time of the polymer. A trend was observed, whereby more compact conformations of DNA evolved over time. Consecutive event charge deficit measurements were narrowly distributed about a well defined mean, suggesting that the analysis of multiple translocations through a pore can be used to improve estimates of the length of long polymers.

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