

Abstract Submitted  
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**Fabrication of nanopores in wax using laser-induced shrinking<sup>1</sup>**

SHANSHAN WU, SANG RYUL PARK, X. S. LING, Brown University — We developed a simple laser heating induced shrinking technique for making plastic nanopore bio-sensing devices. Our technique is capable of shrinking thermoplastic pores of diameters up to several hundred micrometers to a few nanometers. We have made nanopore devices by applying this technique to Apiezon W wax (thermoplastics) micropores. Our DNA translocation experiments with 48 *kilobasepairs* (*kbp*) double-stranded  $\lambda$  DNA ( $\lambda$  dsDNA) have yielded convincing results of the functionality of these devices as biomolecular nanosensors.

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