

418h Generating DNA Nanofiber Array Using Topological Micropattern

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Micropatterning DNA molecules is of great interest for genetic analysis and nanoelectronics. We have developed a method to create array of stretched, oriented, and precisely positioned DNA nanofibers made of single or multiple DNA molecules using topologically micropatterned surface. The nanofiber array can be transferred onto other substrates multiple times to generate more complicated patterns. This technique has promise to be used to produce DNA chips based on single DNA molecules and DNA-templated nanowire array.