

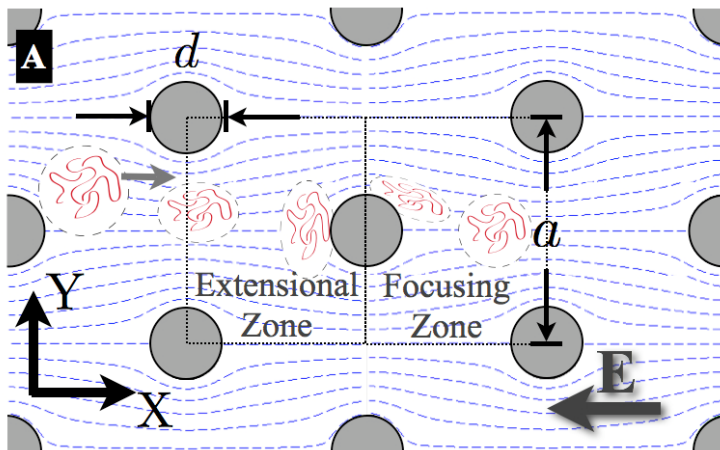
DNA Electrophoresis in Micropost Arrays

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NNIN Facilities utilized: Characterization Facility & Nanofabrication Center

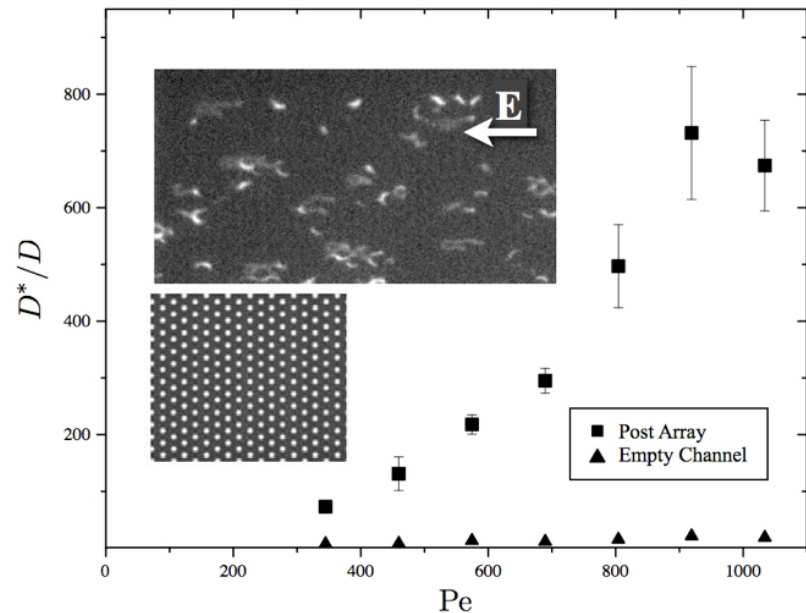
- Fabrication of DNA separation devices
 - ◆ Master molds are fabricated using photoresist on silicon wafer
 - ◆ PDMS channels containing a micropost array are molded by soft-lithography



Schematic illustration of a hexagonal array of pillar in 1 μ m diameter and 3 μ m center-to-center spacing.

- MAJOR OBSERVATION

- ◆ DNA will collide with the posts in a dilute array of obstacles, contradicting previous theories of the dynamics



- Publications

- ◆ Ou, J., Cho, J., Olson, D.W. and Dorfman, K.D., "DNA electrophoresis in a sparse ordered post array," (submitted)