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Single-Molecule Kinetics of λ Exonuclease Reveal Base Dependence and Dynamic Disorder

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Movie S1

Display of movement of tethered beads as a result of enzymatic conversion of their DNA tether from double-stranded to single-stranded DNA. Of the five beads shown, one shows enzymatic activity directly after introducing the enzyme (start of movie). After ~ 600 seconds (one-third of the movie), the enzymatic activity terminates due to dissociation of the λ exonuclease from the DNA. At this point, enzyme is again introduced into the flow cell, after which three beads show movement. Only every 20th acquired frame is shown. The image size corresponds to $\sim 40 \times \sim 30 \mu\text{m}^2$; the total time displayed in the movie is 2000 seconds.