

# **Turbulent Drag Reduction and Degradation of DNA**

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Turbulent drag reduction induced by  $\lambda$ -DNA is studied. The double-stranded DNA is found to be a good drag reducer when compared with the other normal linear polymers. However, this drag reducing power disappears when the DNA denatures to form two single-strand molecules. Mechanical degradation of DNA is also different from that of the normal linear-chain polymers: DNA is always cut in half by the turbulence. Our results suggest that the mechanism for turbulent degradation of DNA is different from that of the normal flexible long-chain polymers.