

Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

Measurement of the elastic energy of sharply bent ds DNA HAO QU, YONG WANG, CHIAO-YU TSENG, GIOVANNI ZOCCHI, University of California, Los Angeles — We present measurements of the elastic energy of short (30 bp), sharply bent, ds DNA molecules. The measurements are obtained by two independent methods: one is based on the monomer-dimer equilibrium of an appropriate configuration where the elastic energy stored in the bent strands drives dimer formation; the other is based on melting curves analysis. We find that, for example, the elastic energy of a sharply bent 30 bp double stranded DNA molecule with a nick at the center does not exceed 10 kBT.

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Date submitted: 05 Oct 2009

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