

Abstract Submitted
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Modeling DNA unzipping in the presence of bound proteins

FARHAT HABIB, RALF BUNDSCHUH, The Ohio State University — Unzipping Force Analysis of Protein Association (UFAPA) is a novel technique to investigate protein-DNA interactions by mechanically unzipping DNA. We computationally investigate the limits of this technique under quasi-static conditions. We find the minimum binding energy of a protein for which the protein can be detected using this technique and the minimum distance between the binding sites of two proteins of varying binding energies that can be resolved unambiguously with this technique.

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