

# Analysis of DNA and DNA-protein complexes by AFM

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AFM is now become a powerful tools for the study, on single molecules at the nanometer scale, and the analysis of DNA and DNA-protein complexes. Preparation of the samples, spreading techniques (1,2) and visualization methods allow characterization of structural properties of DNA, single- or double-stranded (3), naked or within a nucleoprotein complex (4), and analysis of complexes assembly and their remodelling induced by motor molecular such as helicases, polymerase or topoisomerase. AFM has also shown its ability to work in liquid environment, opening the way to analyse the properties of molecular motor in their remodelling properties within nucleoprotein complexes.

Here I will survey the ability of AFM to characterize DNA-protein interactions through high resolution or dynamic imaging and force spectroscopy. I will also emphasize on the key problem of DNA spreading for AFM imaging. The influence of the mica surface on nucleoprotein complex assembly and remodelling will be also addressed.

## References :

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