

Effects of Driving Amplitude during Intermittent Contact Force Microscopy upon Examination of Bio-Molecules

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The specificity of the binding form for anti-cocaine antibody, BSA-cocaine conjugated complex has been examined under atomic force microscopy. In this report, the intermittent force mode in addition to noncontact force mode has been utilized in order to characterize the samples. The bio-molecules samples have been prepared on the mica, or cover glass with proper treatments. In order to examine the dependency of the vibrating amplitude and influence of the resolution of the force microscope, the force spectroscopy dependent upon the driving voltage of the cantilever has been performed. The higher average amplitude of the cantilever in the intermittent contact force microscopy seemed to reveal better resolution. In addition, the analysis of the bio-molecule samples attached with gold particle will also be presented.