1. 概要（Summary）

This AFM experiment is utilized to produce images of the present DNA nanostructures on mica surfaces.

2. 実験（Experimental）

【利用した主な装置】

原子間力顕微鏡

【実験方法】

Images were analyzed by NanoScope Analysis Version 1.60.

3. 結果と考察（Results and Discussion）

AFM imaging as shown in Fig. 1 was performed in Tapping Mode on a Digital Instruments Dimension 3100 with Digital Instruments Nanoscope V controller (Vecco). A 6 μL droplet (2 - 10 nM) of DNA Origami sample followed by a 400 μL drop of 1xTAE/12.5 mM Mg-acetate solution were placed on a freshly cleaned mica surface and left for approximately 2 min. Images were taken under the liquid tapping mode, with C-type triangular tips (resonant frequency, f0 = 56 kHz; spring constant, k = 0.24 N/m) from the SNL-10 silicon nitride cantilever chip (Bruker Corp.).
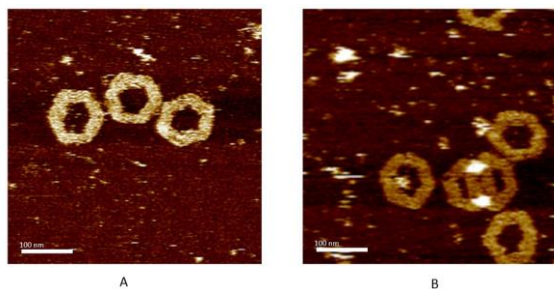

Fig 1. AFM Images of DNA Origami.

4. その他・特記事項（Others）

None

5. 論文・学会発表（Publication/Presentation）

(1) Adi, Wibowo, and Kosuke Sekiyama. "Controlling the reversible assembly/disassembly of multicomponent using molecular recognition in molecular robots." Artificial Life and Robotics 20.3 (2015): 228-236.

6. 関連特許（Patent）

None