

Nanomanipulation of single DNA molecules and its applications

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In this short review paper we briefly introduce recent results from our research work on the manipulation of single biological molecules deposited on the surface of mica by using scanning force microscopes: results of a cooperation between the Shanghai joint group and the University of Saarland on the manipulation of single DNA molecules and some possible applications based on single molecule manipulation and structural characterization. These results emanate from the Shanghai research teams in studying DNA molecular combing, cutting, pushing and pick-up. Future prospects are briefly outlined.