

Surprising charge transport in DNA

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Abstract (Calibri 11)

The DNA double-strand recognition, as well as the ability to manipulate its structure open a multitude of ways to make it useful for molecular electronics. Step by step we improve the synthesized constructs and the measurement methods of single DNA-based molecules. I will present new and surprising results on dsDNA molecules. I will present new DNA-based molecules and report on our measurements of their properties.

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Figures

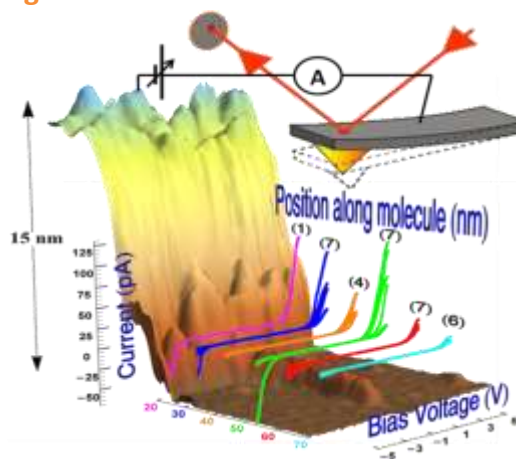


Figure 1. Three dimensional presentation of a G4-DNA molecule protruding from under a sharp metal border. The AFM tip and electrical circuit are illustrated. On top of the molecule appear current-voltage curves measured on ten different molecules.