

## **Analysis of cellular and molecular interactions using Atomic Force Microscopy**

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Recent advances in AFM-based techniques for force spectroscopy are generally centered mostly about two major application areas. For single molecule force spectroscopy (SMFS) most of the relevant information is in the first several hundred nm of extension, whereas for cell-cell and cell-substrate interactions, the force extension can extend to 80 microns or more. The optimization of AFM equipment for these two techniques has some similarities but many significant differences. Which features and parameters need to be optimized for cell-cell and SMFS investigations will be discussed.