

Supporting Information

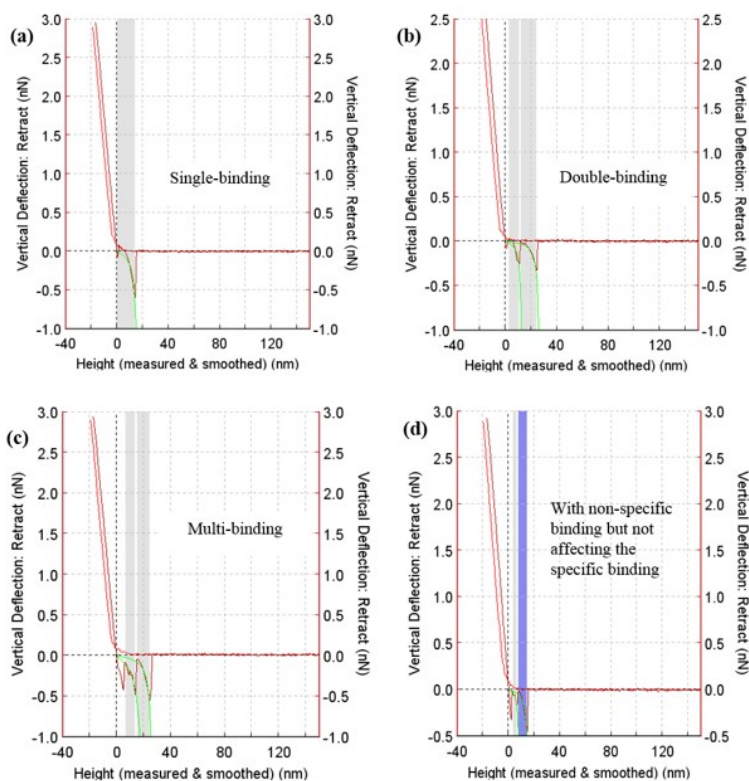
**Label-free determination of adenosine and mercury ions according  
to force mapping-based force-to-color variety**

*Qing Li<sup>a</sup> and Gang Wei<sup>a,\*</sup>*

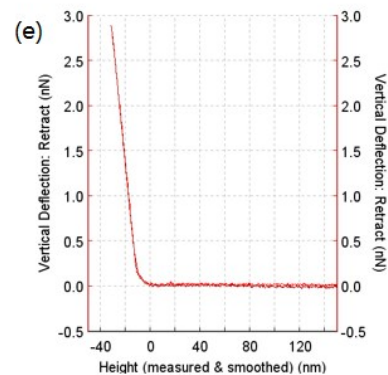
<sup>a</sup> Hybrid Materials Interfaces Group, Faculty of Production Engineering and Center for  
Environmental Research and Sustainable technology (UFT), University of Bremen, D-28359  
Bremen, Germany

Corresponding author: [wei@uni-bremen.de](mailto:wei@uni-bremen.de)

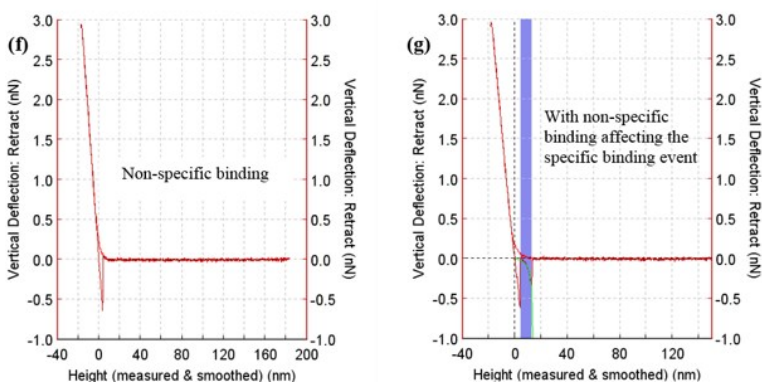
## Specific Binding



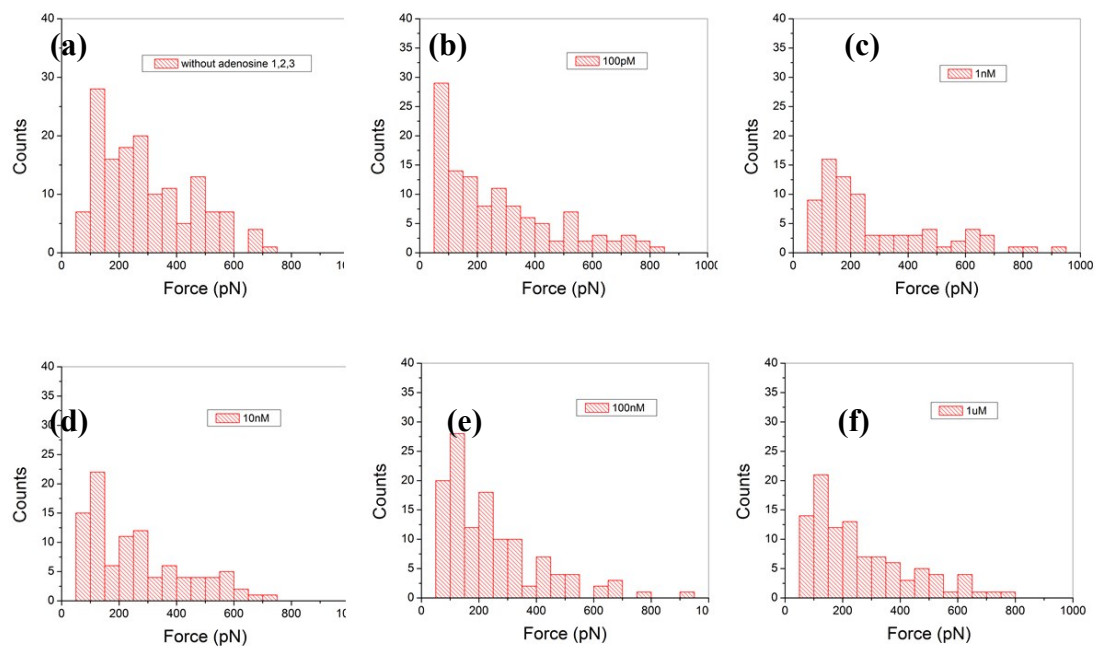
## No Binding Events



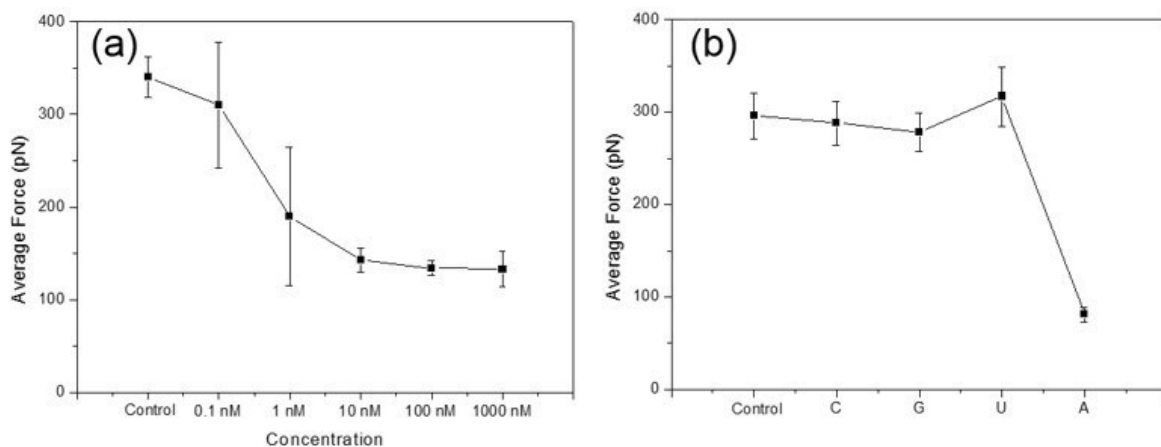
## Nonspecific Binding



**Figure S1.** Characteristic FD curves of different binding events collected during adenosine detection: a-d) specific binding, e) no binding, and f,g) non-specific binding. It should be noted that the non-specific binding event in FD curve d) did not affect the specific binding event, and therefore can be counted to as specific binding, but this is not the case for curve g).



**Figure S2.** The distribution of specific binding force when adding adenosine with different concentrations: a) 0, b) 0.1, c) 1, d) 10, e) 100, and f) 1000 nM.



**Figure S3.** Average forces calculated from the whole force mapping data including all three type FD curves: a) detection limit data set of adenosine, b) selectivity data set of adenosine.