



## Supporting Information

for

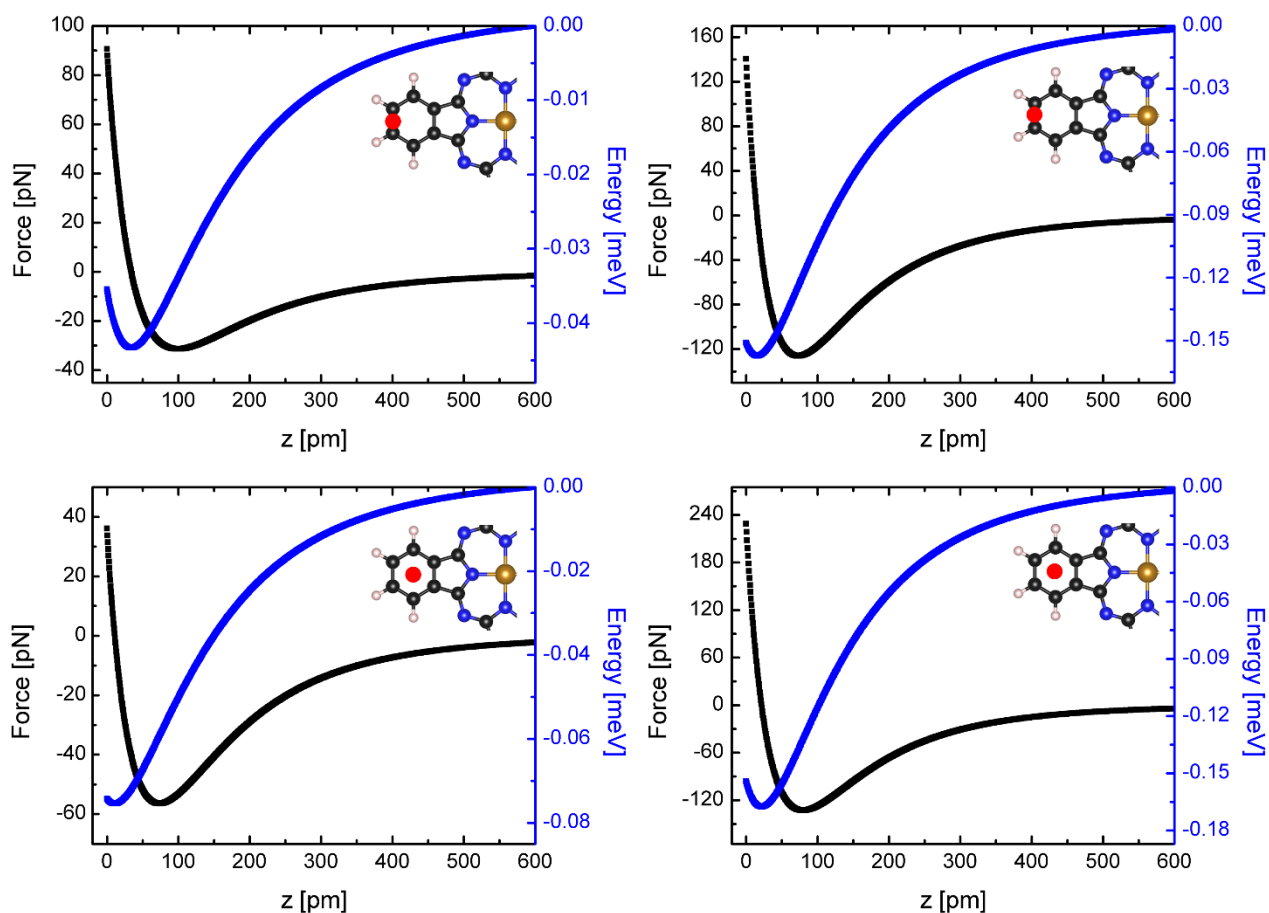
### **Nitrous oxide as an effective AFM tip functionalization: a comparative study**

Taras Chutora, Bruno de la Torre, Pingo Mutombo, Jack Hellerstedt, Jaromír Kopeček, Pavel Jelínek and Martin Švec

*Beilstein J. Nanotechnol.* **2019**, *10*, 315–321. [doi:10.3762/bjnano.10.30](https://doi.org/10.3762/bjnano.10.30)

## Additional computational data

## Calculated force and energy



**Figure S1:** Deconvoluted force and energy from the experimentally obtained frequency shift as a function of the tip–sample distance for CO (left side) and N<sub>2</sub>O tips (right side). The long-range component measured on bare Au(111) was subtracted prior to calculation from the total interaction curve. The measurements were acquired above an outer C–C bond and above a hollow site of a peripheral benzene of the FePc molecule (position indicated with a red dot in the inset of each plot). The force and energy were calculated using the Giessibl method [1].

## References

[1] Giessibl F. J. *Appl. Phys. Lett.* **2001**, 78, 123–125. doi:10.1063/1.1335546