Appendix

In the following page, a complete sequence of a switching experiment is shown. The initial image shows an island of only *trans*-TBA molecules on Au(111). Between each successive STM image (330×360 Å^2), single voltage pulses have been applied (the constant tip position is marked by a cross) to induce an isomerization of the molecules in the island. In total, 48 pulses have been applied, all with the same parameters: t = 20 s, V_m = 2 V, tip height = 6 Å (the feedback loop is switched off). It can be seen that during each pulse several molecules in the island are switched from the *trans*- to the *cis*-isomer, therefore appearing much brighter. The number of *cis*-molecules increases with the number of pulses, i.e. the time. Note that towards the end of the sequence, where a sufficient number of *cis*-isomers is present in the island, the *cis*→*trans* isomerization occurs as well: Bright lobes return to their initial intensity and the *trans*-form is exactly restored.

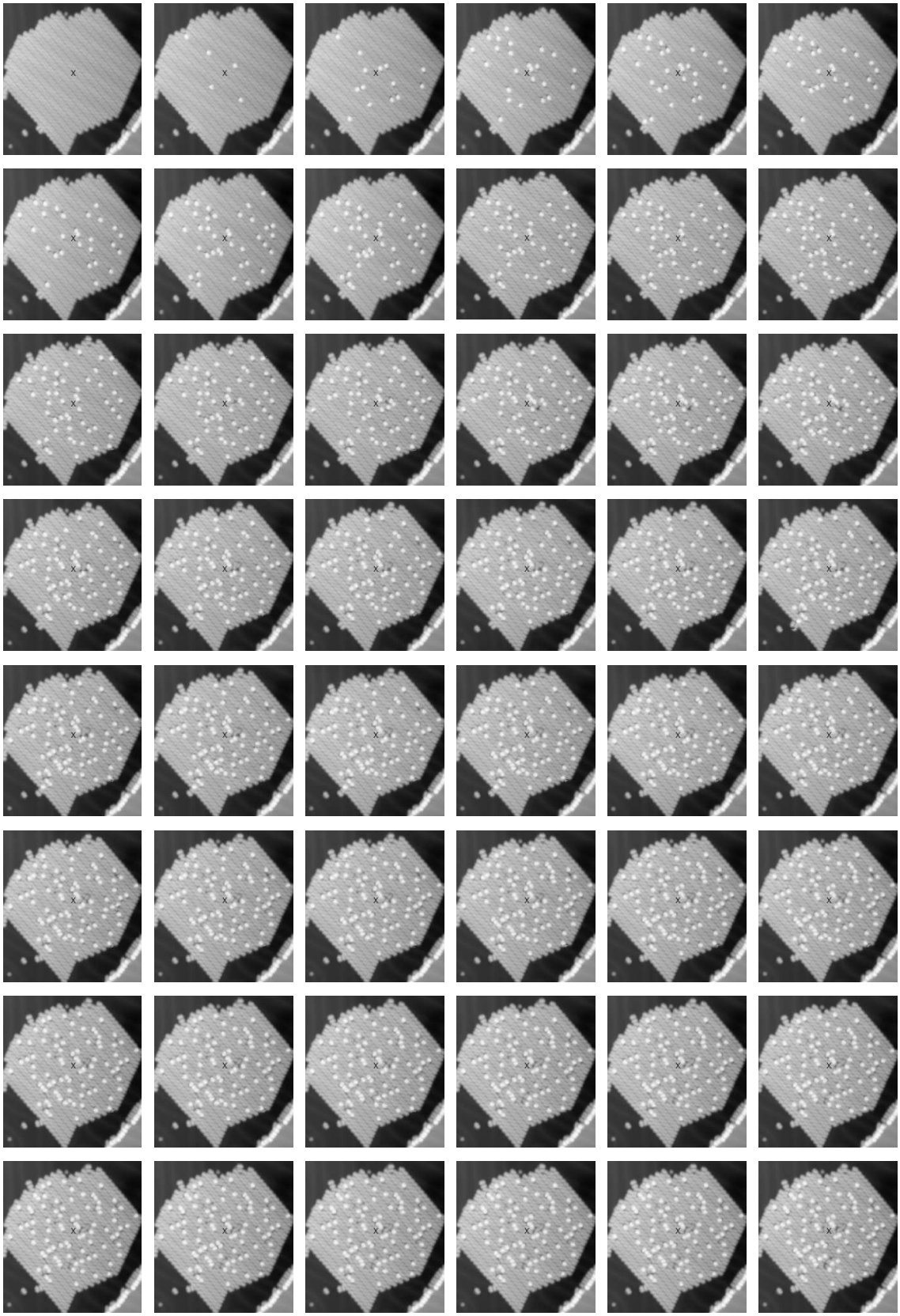

Figure 7.1: Complete sequence of a switching experiment

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Publications

Articles:

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