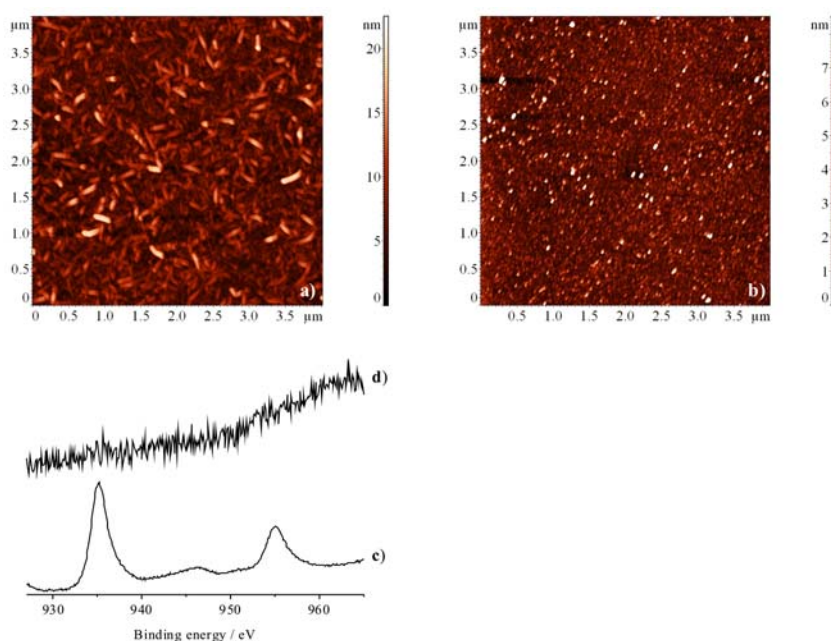


Supplementary Information

AFM and XPS investigations on the removal of the Cu catalyst

SI Figure 1a depicts the tapping mode height image of the treated surface, which shows the coverage of the whole surface with needle-like structures. These needles could be related to the copper catalyst, which was used to obtain the selective formation of the 1,4-disubstituted product. Therefore, the substrate was treated for 24 h in an aqueous buffer solution of ammonium citrate.¹

SI Figure 1b shows the complete disappearance of the needles after the treatment in the buffer solution. Additional investigations of this cleaning step were performed by XPS spectroscopy. SI Figures 1c and d display the high resolution spectra of the Cu(2p) region of sample No. **1** before and after treatment with the citrate buffer. After cycloaddition the surface revealed a splitting of the Cu(2p) signal at 935.2 and 955.1 eV, which correlates to literature values.² After the washing procedure with ammonium citrate (SI Figure 1d) the copper signal completely disappeared, which indicates the complete removal of the catalytic species.



SI Figure 1. Top: tapping mode AFM height images of sample No. **1** before (a) and after treatment with citrate buffer (b). Bottom: high resolution XPS spectra of the Cu(2p) region before (c) and after treatment with citrate buffer (d).

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