

# Assembled atomic spin chains on surfaces using a scanning tunnelling microscope

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## Abstract

Scanning tunneling microscopy (STM) has proved to be a mature technique for the study of magnetic impurities on different substrates. Additionally, the STM allows us to manipulate the atoms and assemble magnetic structures of atomic dimensions that are going to behave differently depending on their geometrical and chemical composition [1]. We have also applied our techniques to the study of magnetic spectra on superconducting surfaces revealing the orbital properties of the Yu-Shiba-Rusinov states associated with the magnetic impurities [2]. Such magnetic impurities on different substrates allow us to explore many-body effects and exotic phenomena in different experimental spin systems giving an understanding on the parameters on each system [3].

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## References

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[3] Choi, D.-J. et al. Influence of Magnetic Ordering between Cr Adatoms on the Yu-Shiba-Rusinov States of the  $\beta$ -Bi<sub>2</sub>Pd