Scanning Probe Methods Group, Prof. Dr. Roland Wiesendanger

Publications: Original Articles

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Subgroup: STM/STS on Semiconductors

Search for large topological gaps in atomic spin chains on proximitized superconducting heavy-metal layers
Ph. Beck, B. Nyári, L. Schneider, L. Rózsa, A. Lászlóffy, K. Palotás, L. Szunyogh, B. Ujfalussy, J. Wiebe, and R. Wiesendanger, Communications Physics **6** 83 (2023)

Systematic study of Mn atoms, artificial dimers, and chains on superconducting Ta(110)
P. Beck, L. Schneider, R. Wiesendanger, and J. Wiebe, Phys. Rev. B **107** 024426 (2023)

Precursors of Majorana modes and their length-dependent energy oscillations probed at both ends of atomic Shiba chains
Lucas Schneider, Philip Beck, Jannis Neuhaus-Steinmetz, Levente Rózsa, Thore Posske, Jens Wiebe, and Roland Wiesendanger, Nature Nanotechnology **17** 384 (2022)

Structural and superconducting properties of ultrathin Ir films on Nb(110)
Ph. Beck, L. Schneider, L. Bachmann, J. Wiebe, and R. Wiesendanger, Phys. Rev. Materials **6** 024801 (2022)

Correlation of Yu–Shiba–Rusinov States and Kondo Resonances in Artificial Spin Arrays on an s-Wave Superconductor
A. Kamlapure, L. Cornils, R. Žitko, M. Valentyuk, R. Mozara, S. Pradhan, J. Fransson, A. I. Lichtenstein, J. Wiebe, and R. Wiesendanger, Nano Letters **21** 6748 (2021)

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L. Schneider, P. Beck, T. Posske, D. Crawford, E. Mascot, S. Rachel, R. Wiesendanger and J. Wiebe, Nature Physics **17** 943 (2021)

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A. Kamlapure, L. Cornils, J. Wiebe, and R. Wiesendanger, Nature Communications **9** 3253 (2018)

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Enhanced spin-ordering temperature in ultrathin FeTe films grown on a topological insulator
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