

Abstract Submitted
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Evolution of the Kondo Resonance for Screened Atoms on Metals and Thin Insulators JENNY C. OBERG, London Centre for Nanotechnology, UCL, UK; Department of Physics & Astronomy, UCL, UK, M. REYES CALVO, London Centre for Nanotechnology, UCL, UK, CYRUS F. HIRJIBEHEDIN, London Centre for Nanotechnology, UCL, UK; Department of Physics & Astronomy, UCL, UK; Department of Chemistry, UCL, UK — We study the magnetic anisotropy and the Kondo screening of the spin of Co atoms deposited on Cu₂N using scanning tunneling microscopy and spectroscopy. We find that for Co atoms placed on Cu₂N islands the Kondo screening is weaker when the atom is very close to the edge and at the same time has significant changes in the magnetic anisotropy. Furthermore we observe that Co atoms that are placed on the Cu surface but near the Cu₂N islands still show anisotropy and an unusually small Kondo temperature. At larger distances from the Cu₂N islands the usual large Kondo temperature recovers. We examine possible causes for these dramatic changes in the Kondo screening and magnetic anisotropy, including a possible extension of the electronic properties of the Cu₂N islands compared to the topographic influence.

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