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Surface Plasmon Assisted Kondo Resonances on a Metallic Nanowire REN-SHOU HUANG, YIA-CHUNG CHANG, Research Center for Applied Sciences, Academia Sinica — We propose an experiment to measure the Kondo effect for magnetic atoms adsorbed on the surface of a metallic nanowire. In addition to the traditional sp-d hybridization, by introducing the strong electromagnetic field of the localized surface plasmon on the nanowire, we show that it is possible to observe additional sp-d electron transfer processes assisted by surface plasmons. Due to the good surface-to-volume ratio of the nanowire, the Kondo resonances could be observed as multiple anti-resonances in the differential conductance versus bias voltage curve

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