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Surface-Kondo Effect Observed for Single Gd and Ho Atoms Embedded in Lu(0001) DANIEL WEGNER, ANDREAS BAUER, GÜNTER KAINDL, Institut für Experimentalphysik, Freie Universität Berlin, Arnimallee 14, 14195 Berlin, Germany — By using scanning tunneling spectroscopy at low temperature, we found narrow antiresonances at the Fermi energy in the vicinity of single magnetic defect atoms (Gd and Ho) that are embedded within the surface layer of Lu(0001). The effect is explained by interaction of the magnetic defect atoms with the narrow surface-state band of Lu (0001) that crosses the Fermi energy. It can therefore be interpreted as a surface-Kondo effect.

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