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Kondo Shadows in Hybrid Magnetic Molecular Solids MIKHAIL

KISELEV, Institute for Theoretical Physics, Universität Würzburg, Würzburg D-97074, Germany, KONSTANTIN KIKOIN, Ben-Gurion University of the Negev, Beer Sheva 84105, Israel — We discuss the properties of layered Anderson/Kondo lattices with metallic electrons confined in 2D xy planes and local spins in insulating layers forming chains in z direction. Each spin in this model possesses its own 2D Kondo cloud, so that the Nozieres' exhaustion problem does not occur. The high-temperature perturbational description is matched to exact low-T Bethe-ansatz solution. The excitation spectrum of the model is gapless both in charge and spin sectors. The disordered phases and possible experimental realizations of the model are briefly discussed.

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