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Electrical properties of (Pu,Lu)Pd3

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We present the resistivity and Hall coefficient of the heavy fermion compound PuPd3 and its solid solution with LuPd3. A simple crystal field model of conduction s-electrons scattering off local f-electron moment was found to describe the low temperature behavior of the resistivity. This model suggests that the s-f exchange interaction as well as the inter f-electron interactions decrease with increasing Lu doping. The high temperature resistivity shows Kondo behaviour up to 50% doping.

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