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Voltage quench dynamics of a Kondo system ANDREY ANTIPOV, QIAOYUAN DONG, EMANUEL GULL, Univ of Michigan - Ann Arbor — We examine the dynamics of a correlated quantum dot in the mixed valence regime. We perform numerically exact calculations of the current after a quantum quench from equilibrium by rapidly applying a bias voltage in a wide range of initial temperatures. The current exhibits short equilibration times and saturates upon the decrease of temperature at all times, indicating Kondo behavior both in the transient regime and in steady state. The time-dependent current saturation temperature connects the equilibrium Kondo temperature to a substantially increased value at voltages outside of linear response. These signatures are directly observable by experiments in the time-domain.

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