

Electronic and heat transport in molecular junctions

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We analyze the electronic transport through spin-1 molecular junctions as a function of temperature, magnetic field and Spin anisotropy. We present results for the charge and spin transport and thermopower obtained with the NRG approach and compare the results with recent experimental data. A hard-axis magnetic anisotropy produces a two stage Kondo effect and a large enhancement of the charge Seebeck coefficient S_c ($\sim K_B/|e|$) whose value only depends on the residual interaction between quasiparticles in the low temperature Fermi-liquid regime. In the underscreened spin-1 Kondo regime, the high sensitivity of the system to magnetic fields makes it possible to observe a sizable value for the spin Seebeck coefficient even for magnetic fields much smaller than the Kondo temperature.