Supporting Information for

Gate-tunable large negative tunnel magnetoresistance in Ni-C $_{60}$ -Ni single molecule transistors

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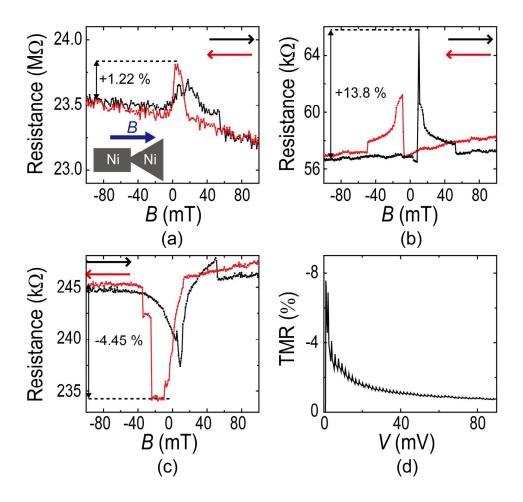


Figure S1. (a)-(c) Magnetoresistance (MR) curves of three different bare Ni tunnel junctions (Ni-TJs) fabricated by using the electrical break junction method. Bias voltages, V, were set to be (a) 5 mV, (b) –5 mV, and (c) -11.8 mV. The MR ratios are (a) +1.22 %, (b) +13.8 %, and (c) -4.45%. The inset in (a) shows a schematic geometry of a pair of Ni electrodes and an applied B-field (in-plane and parallel to the current). The black (red) arrows in (a)-(c) indicate the directions of B-field sweep. (d) Tunnel magnetoresistance (TMR) as a function of V for (c). All the mesurements were carried out at 0.3K.