

Pumping of vibrational excitations in a Coulomb blockaded suspended carbon nanotube

Supplementary Information

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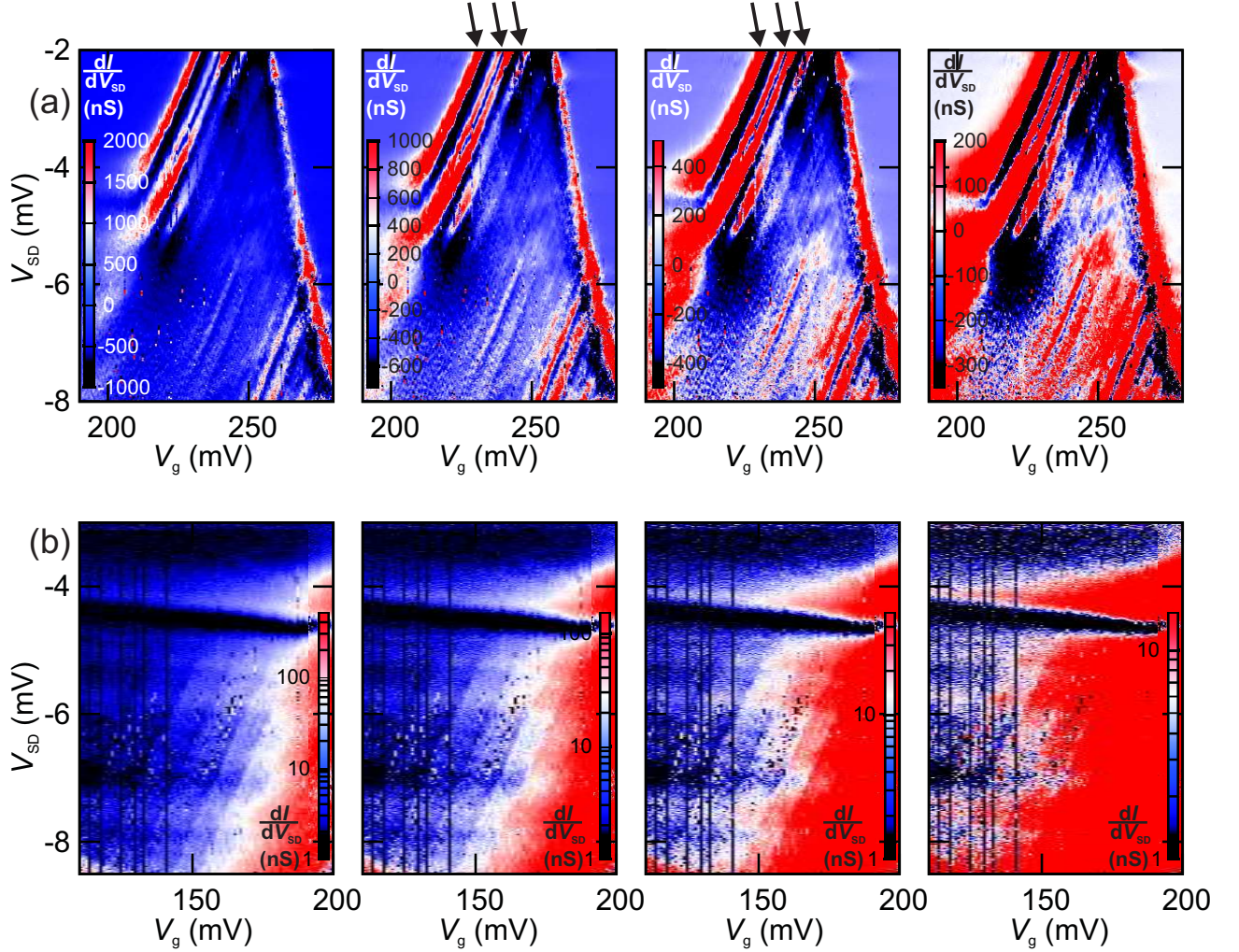


Fig. S1 (Color online) (a), (b) Color plots of the data of Fig. 2(a) and 2(d), respectively, at different color scale ranges, for better identification of the line features throughout the plot. Differential conductance dI/dV_{SD} in nS as function of gate voltage V_g and source-drain voltage V_{SD} .

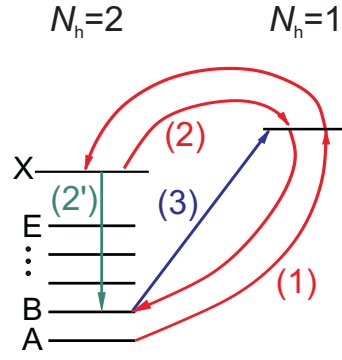


Fig. S2 (Color online) Alternative description scheme for the processes of Fig. 3(a). For clarity, we here differentiate between the $N_h = 2$ levels (A-E, X) and the one involved $N_h = 1$ level (the $N_h = 1$ ground state). Process numbers are identical to those used for the panels of Fig. 3(a). (1) and (2) describe inelastic cotunneling ($N_h = 2 \rightarrow 1 \rightarrow 2$), (2') relaxation from state X to (here) state B. Arrow (3) depicts the subsequent tunnel-out process, which becomes visible in the current measurement.