

The diagram shows a four-terminal device with a central channel and side gates. The central channel is represented by a series of four yellow ovals, each labeled with a transmission coefficient: t_d , t_l , t_r , and t_s . The side gates are represented by blue rectangles, each labeled with a gate voltage: G_{1D1} , G_{2D1} , G_{2D2} , G_{3D1} , G_{3D2} , and G_{3D3} . The gates are connected to a common ground potential V_{SD} . The device is connected to a voltage source V_{SD} at the bottom. The diagram illustrates the coupling between the central channel and the side gates, which is essential for understanding the device's transport properties.

Phase diagram in the V_{G1} vs V_{G3} plane. The diagram shows regions for different states (n, m, l) . The central orange region is labeled $(1,1,1)$. Other regions include $(2,1,1)$ (light blue), $(1,1,2)$ (light purple), $(2,0,1)$ (light yellow), $(1,0,2)$ (light orange), and $(1,0,1)$ (light green). A red horizontal line at $V_{G1} = \epsilon$ intersects the central region.

Energy level diagram showing the dependence of energy E on tilt angle ϵ (meV). The diagram illustrates the energy levels $|S_l\rangle$ and $|S_r\rangle$ (blue curve) and the energy levels $|T_l\rangle$ and $|T_r\rangle$ (red line). The energy difference between the $|S\rangle$ and $|T\rangle$ states is labeled $J_l(\epsilon)$ and $J_r(\epsilon)$. The energy levels are labeled with their corresponding spin configurations: $(2,0,1)$ for $|T_l\rangle$, $(1,1,1)$ for $|T_r\rangle$, and $(1,0,2)$ for $|D_{-1/2}\rangle$ and $|D'_{-1/2}\rangle$.