

Spin-polarized transport through coupled quantum dots

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Spin-dependent transport through coupled single-level quantum dots attached to ferromagnetic leads with collinear (parallel and antiparallel) magnetizations is analyzed theoretically. The intra-dot Coulomb correlation is taken into account, whereas the inter-dot Coulomb repulsion is neglected. Transport characteristics are calculated by the nonequilibrium Green function technique. The relevant Green functions are derived by the equation of motion method. To close the set of equations we employ the Hartree – Fock approximation. The dot occupation numbers are calculated self-consistently.

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