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标题: Cavity Plasmon Polaritons in Monolayer and Double-Layer Graphene
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摘要: Plasmon polaritons in monolayer and double-layer doped graphene embedded in optical microcavity are studied here. The dispersion law for lower and upper cavity plasmon polaritons is obtained. Peculiarities of Rabi splitting for the system are analyzed, particularly the role of Dirac-like spinor (envelope) wave functions in graphene and corresponding angle factors. Typical Rabi frequencies are estimated. The condition of existence of the lower pair of polaritons in the double-layer graphene (corresponding to the antiphase plasmon mode) is obtained. The plasmon polaritons in the considered system can be used for high-speed information transfer in the THz region.
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