

Surface Plasmons for Doped Graphene at Zero and Finite Temperature and the Casimir Effect

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The polarization tensor in (2+1) dimensions for the electronic excitations of graphene is used to investigate the influence of impurities (doping) and temperature on the surface plasmons. At zero temperature we consider non-zero mass gap and chemical potential. At finite temperature graphene with non-zero mass gap, but zero chemical potential is studied. The relation between the surface plasmons and the Casimir force is discussed.

References:

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