

Modeling of electron transfer in graphene on SiC substrate

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Abstract: The results of simulation of electron transfer processes in a single graphene layer on a SiC substrate are presented. High mobility of charge carriers with respect to all known materials makes graphene to be a promising candidate for applications in new semiconductor devices. The prevalence of electron–electron scattering over other types of scattering in the range of moderate field energies in a single graphene layer is established by modeling using the Monte Carlo method.

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