عنوان مقاله:

Magnetoplasma waves on the Graphene with impurity in high magnetic field

محل انتشار:

دومین همایش ملی پژوهش های کاربردی در ریاضی و فیزیک (سال: 1393)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

The spectrum and damping factor of plasma and magnetoplasma waves in a twodimensional electron gas at low temperatures on the Graphene are calculated, taking into account local electron states at impurity atoms. It is shown that localization of electrons decreases the frequency of long-wave plasmons and rear ranges the magnetoplasma spectrum in the vicinity of resonant frequencies of electron transitions between the Landau levels and local levels. As a result, the plasma absorption peak is displaced towards low frequencies, and the magnetoplasma peak splits. The characteristics of plasmons and magnetoplasmons are calculated for parameters on the Graphene at the boundary between silicon and silicon dioxide.

کلمات کلیدی:

plasma waves, magnetoplasma waves, 2DEG, Graphene

لینک ثابت مقاله در پایگاه سیویلیکا:

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