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Charged Impurity Scattering in Graphene induced by adsorption of calcium MASAHIRO ISHIGAMI, JYOTI KATOCH, Department of Physics, University of Central Florida — We have measured the impact of charged impurity scattering induced by adsorbed calcium atoms on the transport properties of graphene sheets. We vary the density of adsorbed atoms on the surface of graphene based-devices which are otherwise devoid of any surface adsorbates in ultra high vacuum environment. We will discuss the impact of calcium atoms on the charge carrier mobility, gate-dependent conductivity and minimum conductivity in comparison with earlier measurements performed using potassium.

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