

Abstract Submitted
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Impact of atomic hydrogen on graphene on hexagonal boron nitride MASA ISHIGAMI, JYOTI KATOCH, Department of Physics, University of Central Florida — We have measured the transport property of graphene on hexagonal boron nitride as a function of density of adsorbed atomic hydrogen. Atomic hydrogen is reversibly chemisorbed and has a large carrier scattering cross section. The impact was previously found to be radically different on graphene on silicon oxide where atomic hydrogen is mostly physisorbed and the saturation coverage of hydrogen was found to correspond to the number of native scatterers. Our results can directly test the theoretical results on the resonant impurities and suggest the nature of the native scatterers in graphene on hexagonal boron nitride. These findings will be outlined in this talk.

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