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Direct determination of the dominant scatterer in graphene on silicon oxide[1] JYOTI KATOCH, MASA ISHIGAMI, Department of Physics and Nanoscience Technology Center, University of Central Florida, Orlando, FL — Previously the density of native scatterers in graphene on silicon oxide was shown to be proportional to the number of adsorption sites for atomic hydrogen [1]. However, this study provided limited information about the sites in graphene with affinity to atomic hydrogen. We employed a detailed temperature programmed desorption study on hydrogen-dosed graphene sheets. The determined desorption energy is used to reveal the nature of the dominant scatterer in graphene on silicon oxide.

[1] J. Katoch, J.H. Chen, R.Tsuchikawa, C.W. Smith, E.R. Mucciolo, and M. Ishigami, *Uncovering the dominant scatterer in graphene sheets on SiO_2*, Physical Review B Rapid Communications, 82, 081417 (2010).

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