Abstract Submitted
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Kelvin Probe Microscopy of Single- and Multi-layer Graphene on SiO_2.[1] ALEXANDRA CURTIN, University of Maryland, THERESA SWANSON, Westminster College, MICHAEL S. FUHRER, Materials Research Science and Engineering Center and Center for Nanophysics and Advanced Materials, Department of Physics, University of Maryland — Kelvin probe microscopy (KPM) was carried out on mechanically exfoliated graphene samples on SiO_2 in conjunction with standard atomic force microscopy. Potential differences between the SiO_2 substrate and graphene flakes were large relative to the average fluctuations over the surface of the graphene. KPM shows a consistent surface potential variation between monolayer, bilayer, and multi-layer graphene, and over folded pleats occasionally found in graphene. The source of these surface potential differences will be discussed.

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