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Simultaneous investigation of magnetoresistance (MR) and twisted angle of twisted bilayer graphene SUNG JU HONG, Department of Physics and Astronomy, Seoul National University, JULIO MANZO, Department of Physics and Astronomy, University of Pennsylvania, KYUNG HO KIM, MIN PARK, SEUNG JAE BAEK, Department of Physics and Astronomy, Seoul National University, DMITRY KHOLIN, P.L. Kapitza Institute for Physical Problems, Russian Academy of Sciences, MIN WOO LEE, Department of Chemistry Education, Seoul National University, EUN SANG CHOI, National High Magnetic Field Laboratory, Florida State University, DAE HONG JEONG, Department of Chemistry Education, Seoul National University, AUGUST YURGENS, Department of Microtechnology and Nanoscience, Chalmers University of Technology, MARIA DRNDIC, ALAN JOHNSON, Department of Physics and Astronomy, University of Pennsylvania, YUNG WOO PARK, Department of Physics and Astronomy, Seoul National University — We have measured magnetoresistance (MR) and twisted angle of twisted bilayer graphene, simultaneously. Twisted angle was measured by transmission electron microscopy (TEM) diffraction experiment on SiN_x substrate. We performed Raman spectroscopy experiment and observed enhanced G mode which results from double resonance scattering process near van Hove singularity (vHs). MR shows superposition of two Shubnikov de Haas (SdH) oscillations and is analyzed by Landau fan diagram.

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