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A New Method to Prepare Large High Quality Epitaxial Graphene Samples XIAOZHU YU, CHOONKYU HWANG, Lawrence Berkeley National Laboratory, ANNEMARIE KOHL, University of Wurzburg, DAVID SIEGEL, BAISONG GENG, FENG WANG, ALESSANDRA LANZARA, University of California Berkeley — One of the roadblocks to graphene technology is the difficulty to produce large uniform samples. We have developed a new way to produce large high quality graphene. The structure and morphology of the epitaxial sample are characterized by angle-resolved photoemission spectroscopy (ARPES), low-energy electron diffraction (LEED), Raman spectroscopy and atomic force microscopy (AFM). The results demonstrated significant improvement of surface smoothness and an increase of terrace size, compared to graphene prepared by normal vacuum annealing.

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