Identifying Few-Layer Graphene with Raman Spectroscopy
DAVID TRAN, NATHANIEL GILLGREN, KEVIN MYHRO, YONGJIN LEE, JAIRO VELASCO JR., LEI JING, MARC BOCKRATH, JEANIE LAU, University of California, Riverside — Few-layer graphene (FLG) exists in various crystallographic stacking sequences, which can strongly influence the material’s electronic properties. We characterize stacking order in FLG using the distinctive features of the Raman 2D-mode’s full-width at half-maximum (FWHM), relative peak size, and shape. Raman imaging allows us to visualize directly the spatial distribution of bilayer graphene, Bernal (ABA) trilayer graphene, and rhombohedral (ABC) trilayer graphene.

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