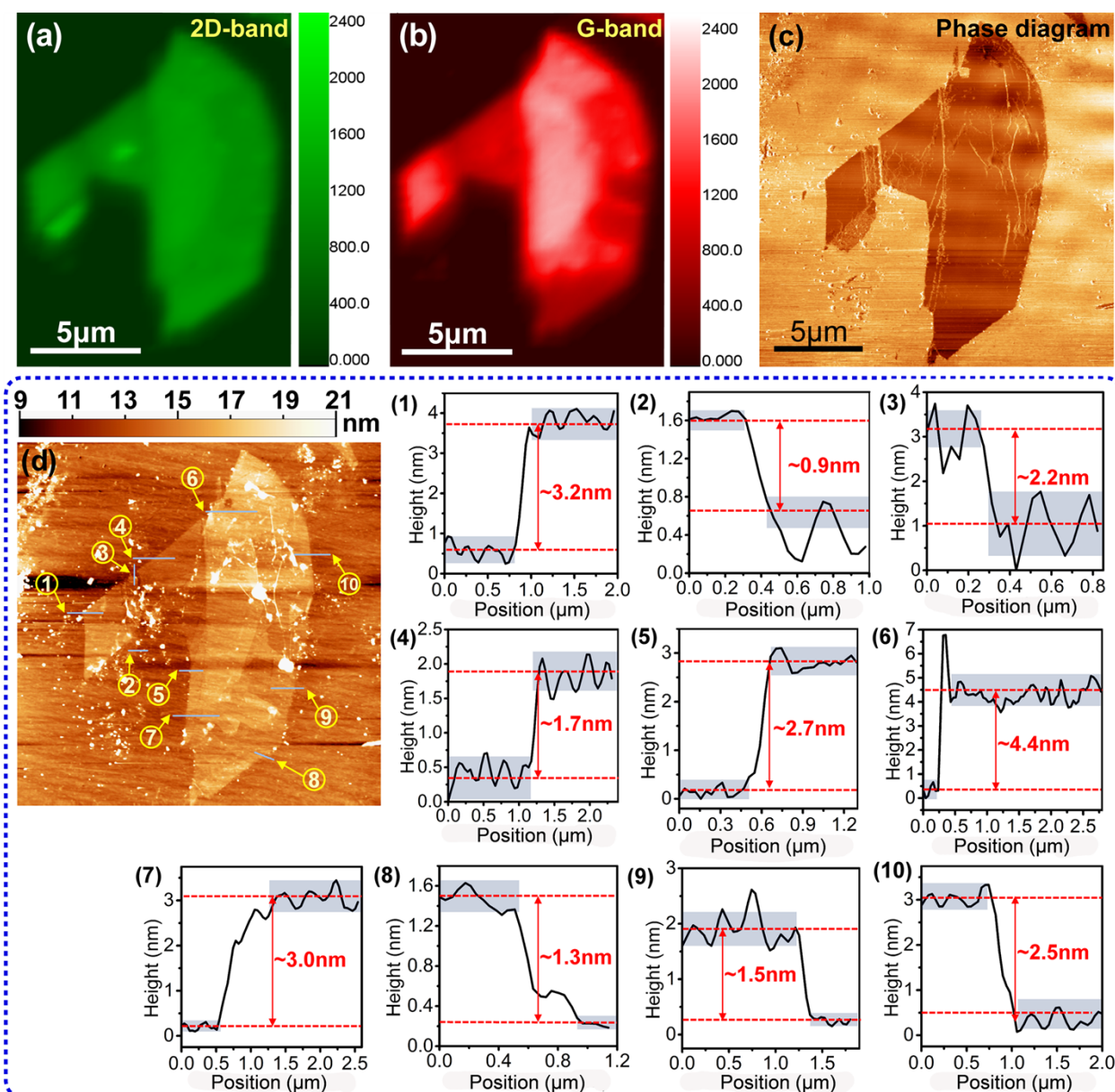# *In-situ* imaging and control of layer-by-layer femtosecond laser thinning of graphene

D.W. Li,[a] Y.S. Zhou,[a] X. Huang,[a] L. Jiang,[b] J.-F. Silvain,[c] and Y.F. Lu*[a]

[a]Department of Electrical and Computer Engineering, University of Nebraska-Lincoln, Lincoln, NE 68588-0511, USA

* Corresponding author, E-mail: ylu2@unl.edu

Figure S1. Raman mapping of (a) 2D-band, (b) G-band, and (c) phase diagram of few-layer graphene in Fig. 3a; (d) AFM image of the few-layer graphene and (1-10) corresponding thickness profiles along the lines in (d).
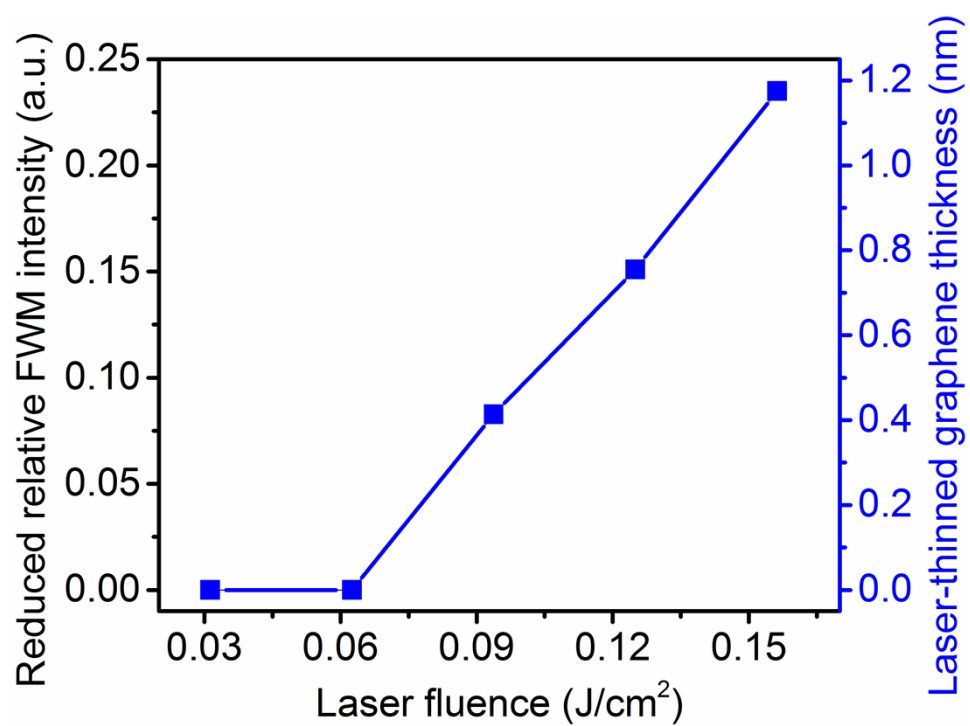
Figure S2. Fluence threshold for the fs laser thinning of few-layer exfoliated graphene with a thickness of 5 nm. (pulse duration: 100 fs, wavelength: 800 nm)
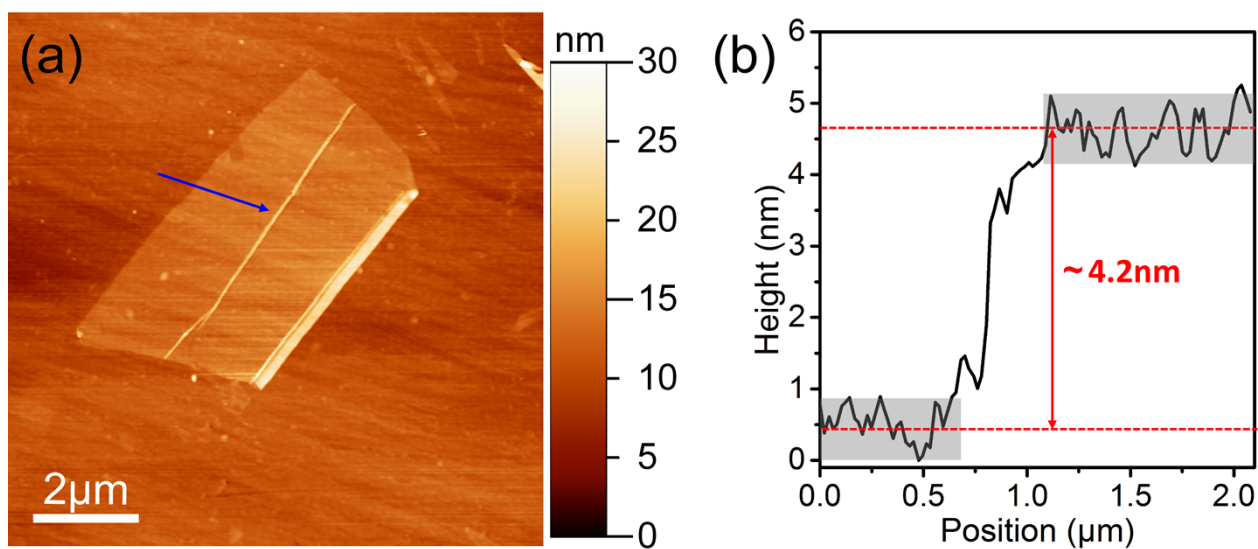
Figure S3. (a) AFM image of the few-layer graphene; (b) the corresponding thickness profile along the line in (a).