

CW laser commissioning

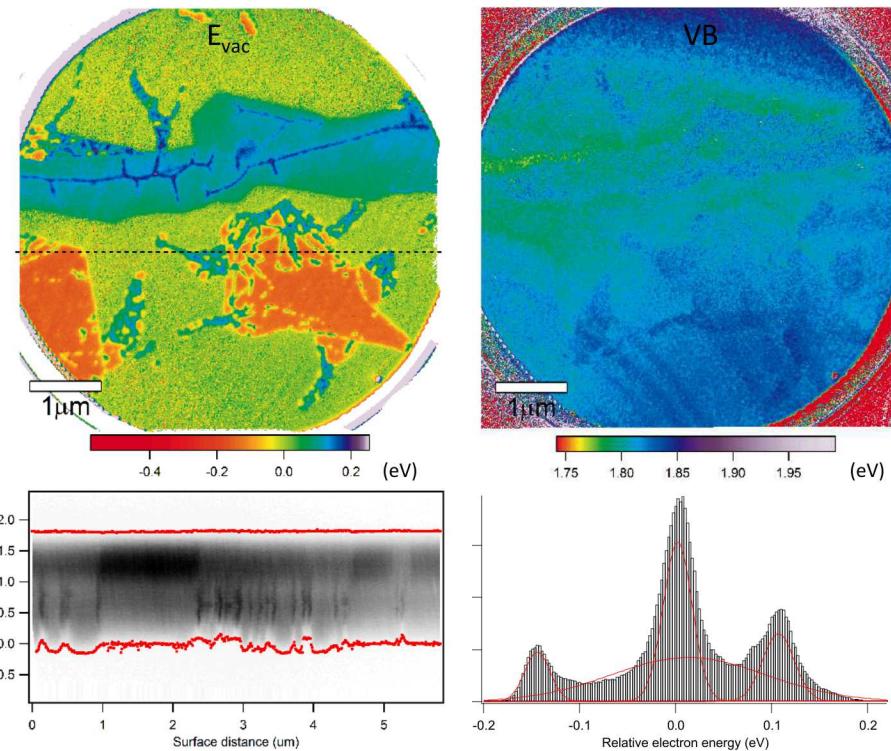
SAND2018-12867D

$\lambda=213\text{nm}$: 5.82eV

(currently) Smallest electron spectrometer slit: $\sim 200\text{meV}$ nominal resolution

Measurement time: $\sim 90\text{min}$

Objective lens compensation: used to eliminate the effect of the start voltage



- Sample: multilayer epitaxial graphene grown on SiC(0001)
 - Areas of different thicknesses form domains with different electronic properties
- Features down to 30-50nm resolved in E_{vac} map
- VB map almost featureless due to uniform metallic, but low DOS of graphene
- Multimodal histogram with symmetric distribution of each mode
 - Each mode originates from the area of different graphene thickness
- The histogram width of $E_{\text{vac}} \sim 30\text{-}40\text{meV}$ reflects the energy resolution of the electron spectrometer's slit used

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LEEM-PEEM contact:
Taisuke Ohta (tohta@sandia.gov)

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