Sample details: Growth done on two-inch backside-scribed double side polished sapphire.

Shipping: Sample is face down in the container and sealed in argon filled glove box.

AFM shows the film is coalesced monolayer with areas of bilayer growth and particles.

PL/Raman

PL demonstrates strong luminescent peak at 1.99 eV and absence of indirect transition peak at ~1.7 eV suggesting monolayer film. Raman peak relative intensities suggest formation of monolayer film.

TEM

SAED pattern shows a single-crystalline film. Composite dark field map shows two regions which are separated by a translational boundary.