

Electronic Properties of Large-area Monolayer TMDs Grown by Chemical Vapor Deposition

Davood Shahrjerdi
New York University

Large-area synthesis of device-quality transition metal dichalcogenides (TMDs) is essential for the transformation of the basic science studies into viable device technologies. In this talk, we discuss synthesis of large monolayer MoS₂ and WS₂ using chemical vapor deposition (CVD). In particular, we present the electronic and optical properties of these materials and devices studied by a number of methods including photoluminescence, Raman spectroscopy, and temperature dependent transport measurements.