

Tip-Enhanced Raman Scattering Imaging of WSe₂ Monolayer**Sungkyunkwan Univ.¹, Inst. for Basic Science²,****°Sung Hyuk Kim¹, Byeong Geun Jeong¹, Chanwoo Lee^{1,2}, Dong Hyun Kim¹, Mun Seok Jeong^{1,2}****E-mail: mjeong@skku.edu**

Two-dimensional transition metal dichalcogenides are one of the most intensively studying materials for application to optoelectronic devices due to their superiority of optical and electronic properties. In order to achieve this application, a fundamental understanding, such as the influence of the defects, is essential.

However, the weak optical signals of these localized structural defects cannot be obtained in conventional far-field measurement because they are localized. We applied tip-enhanced Raman spectroscopy which is one of the near-field optical microscopy techniques to obtain near-field Raman scattering signal. Here we present the influence of localized structural defect for near-field Raman spectra of WSe₂ monolayer.