Raman Applications
-- 2D Materials

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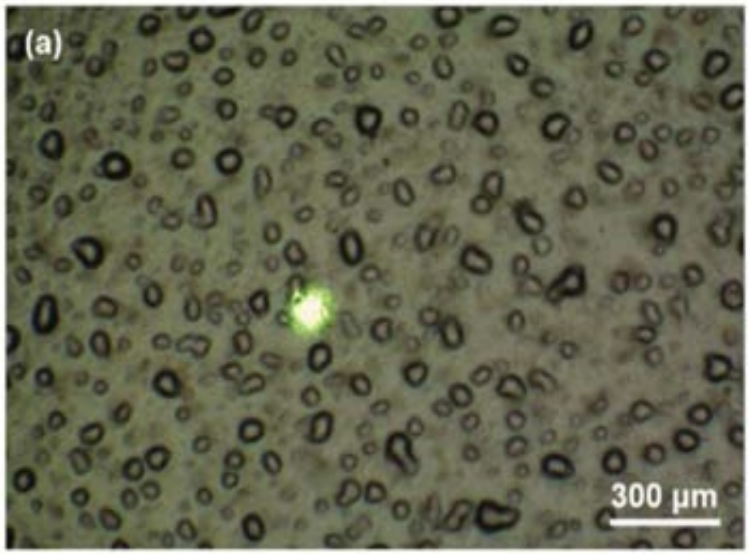
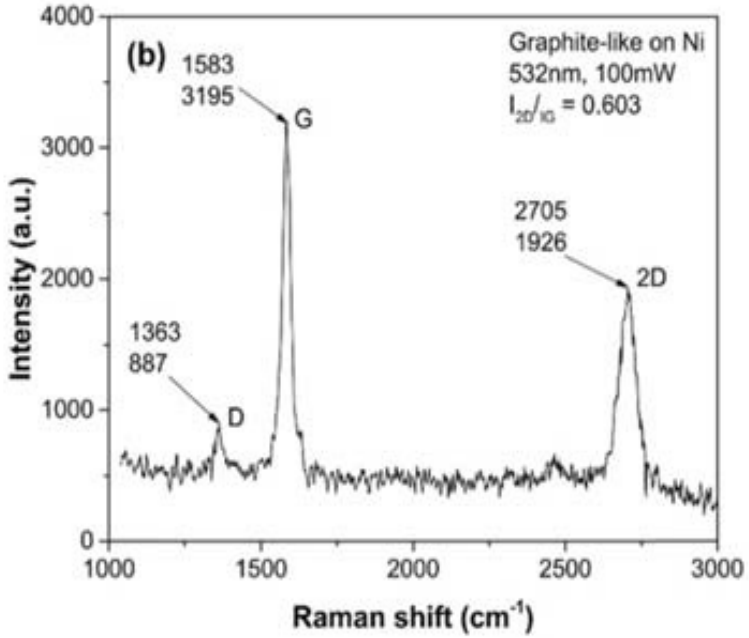
Effects of graphene layers in IGZO/graphitelike+Ni/SiO_2/Si wafer specimens on electrical and optical properties in tribotests



(a) The SEM image of the graphite-like + Ni / SiO_2 / Si wafer specimen

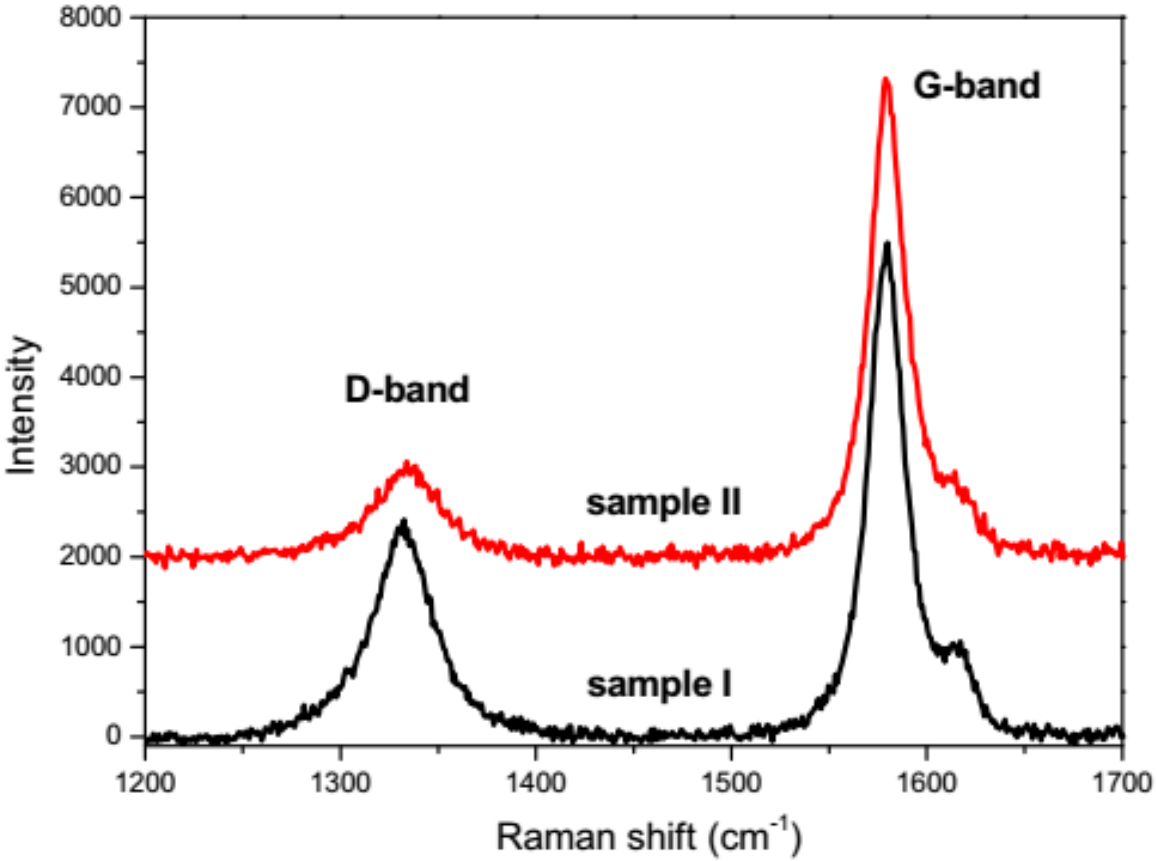


(b) the Raman spectrum with 532 nm as the excitation.

MRI-532nm

期刊來源：Vol. 24, No. 24 | 28 Nov 2016 | OPTICS EXPRESS 3857

Alterations in the local structure of the Co/SiO_2 dispersed carbon nanotubes induced by CO molecules during microwave irradiation



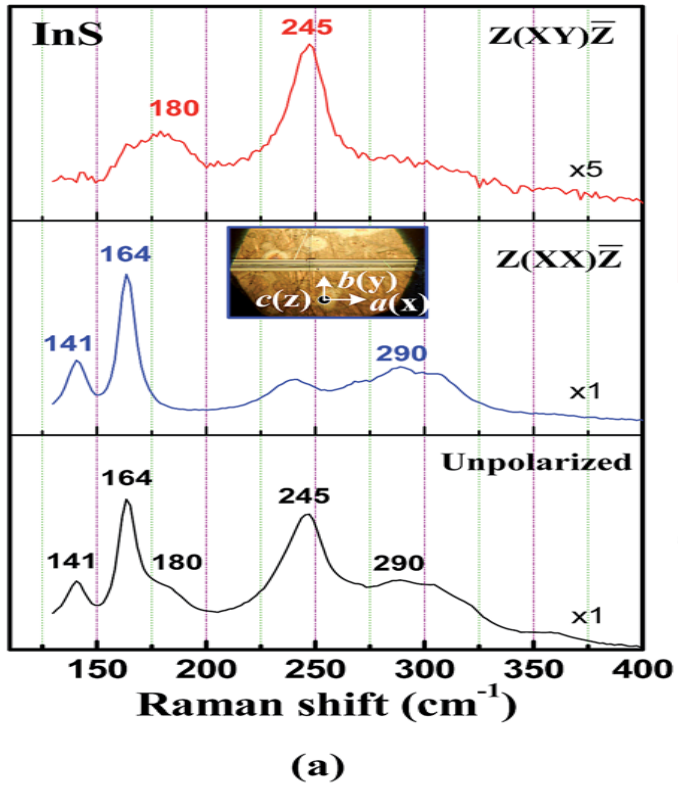
The Raman spectra of sample I and sample II.

The dispersive D band has been shown to be related to defect-induced double-resonant scattering processes, which involve the elastic scattering of electrons by structural defects, and is often used to assess the quality of CNTs.

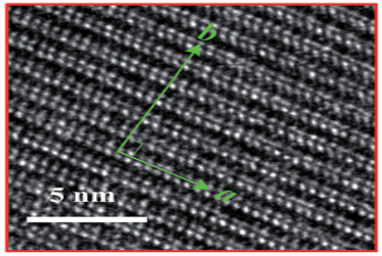
Raman-532nm

期刊來源：M.C. Lin et al. / Materials Chemistry and Physics 135 (2012) 438e444

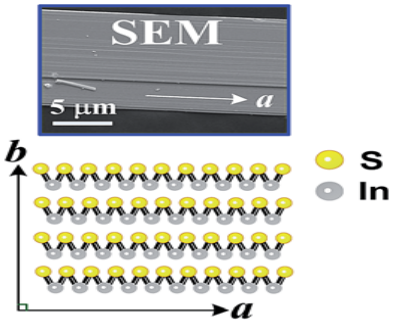
Optical and photodetector properties of stripe-like InS crystal



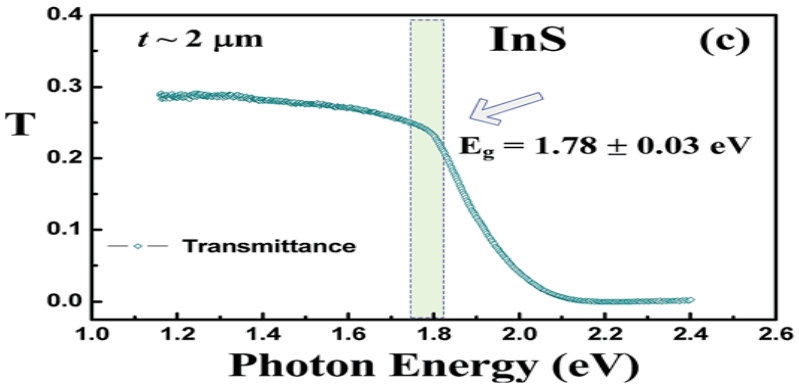
(a)



zone axis = <001>



(b)

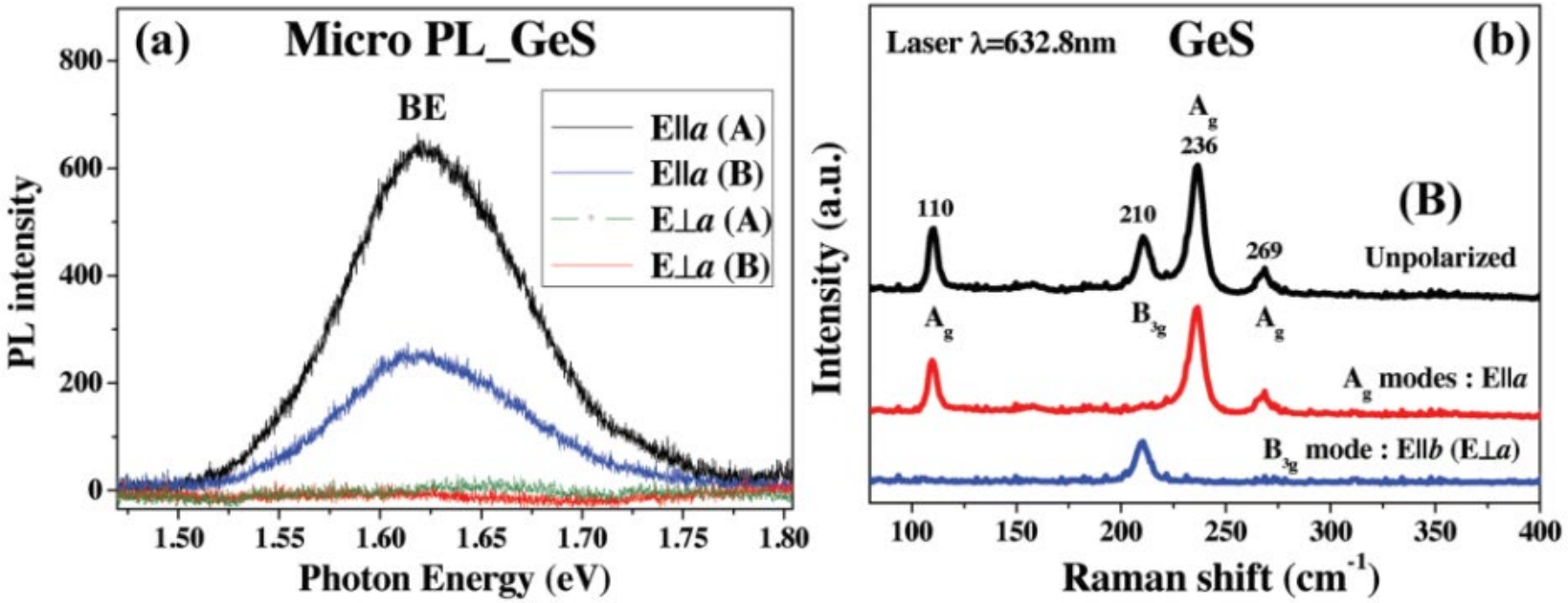


(a) Polarization-dependent Raman spectra of a PVT-grown InS micro stripe. The inset shows the crystal-morphology image and crystal orientations.
(b) SEM and HRTEM images of the c-plane InS. The representative scheme of atomic arrangement in the c plane is also included.
(c) Transmittance spectrum of the InS layer for the determination of the energy gap

RAMaker 532

期刊來源：RSC Advances, 2016, 6, 97445

Polarized Band-Edge Emission and Dichroic Optical Behavior in Thin Multilayer GeS

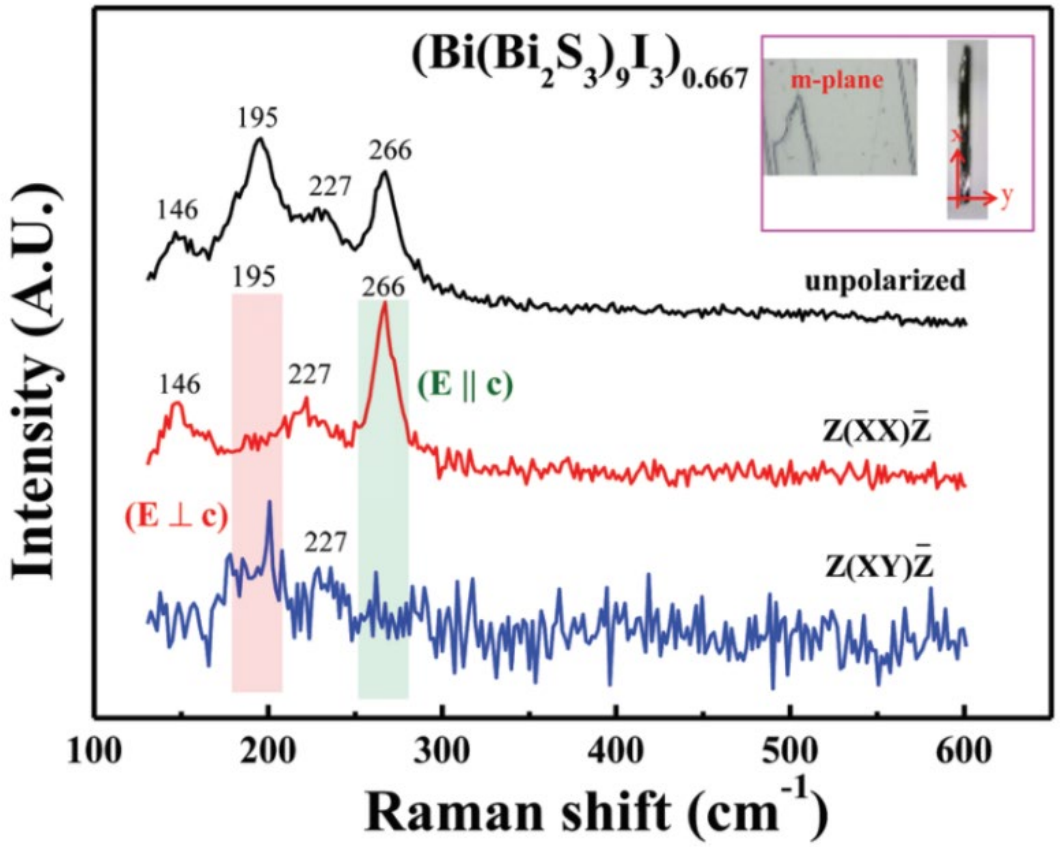


(a) Polarized μPL spectra of multilayer GeS with thickness around 40 nm. The measurements were done with the linearly polarized light along and perpendicular to the a axis. The polarized μPL spectrum of a thicker GeS sample (270 nm) is also included for comparison.
(b) Polarized μRaman spectra of GeS multilayer using red laser.

RAMaker

期刊來源：Advanced Optical Materials 2017, 5, 1600814

The structure and opto–thermo electronic properties of a new $(Bi(Bi_2S_3)_9I_3)_{2/3}$ hexagonal nano-/micro-rod



Polarized Raman spectra of a $(Bi(Bi_2S_3)_9I_3)_{0.667}$ hexagonal micro rod on the m-plane with unpolarized, $Z(XX)\bar{Z}$ and $Z(XY)\bar{Z}$.
The X direction is along the c axis of the rod. The m-plane morphology and crystal orientations are also shown in the inset for comparison.

RAMaker-532nm

期刊來源：Advanced Optical Materials 2017, 5, 1600814

Direct and indirect light emissions from layered $ReS_{2-X}Se_X$ ($0 \le x \le 2$)

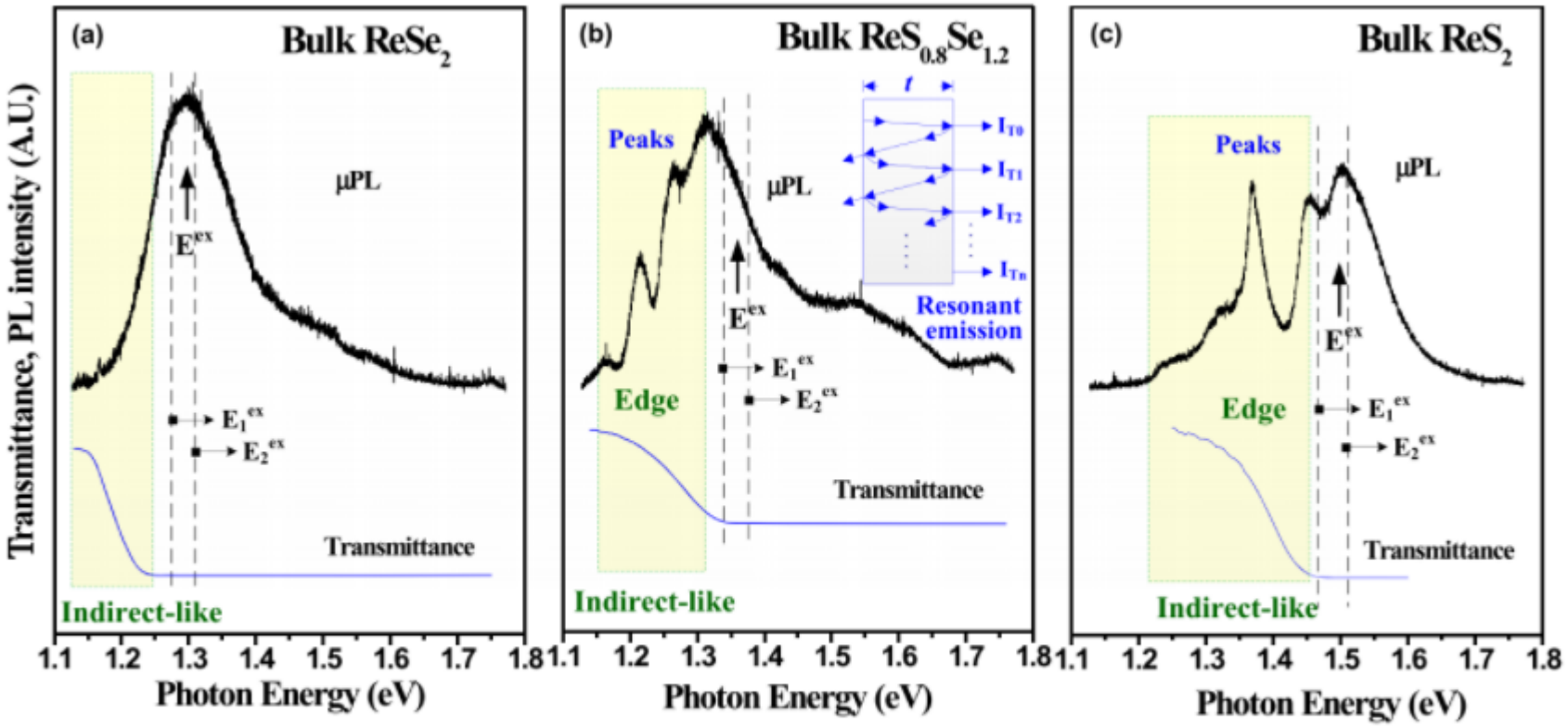
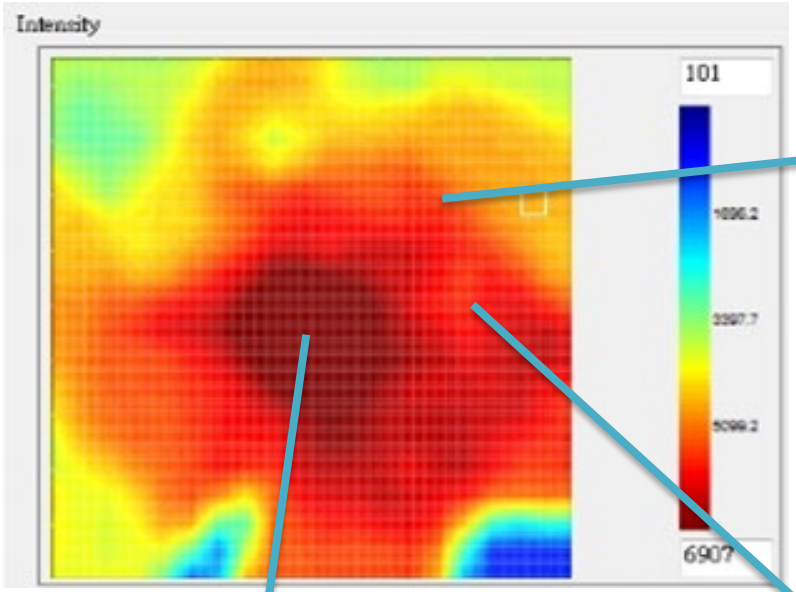


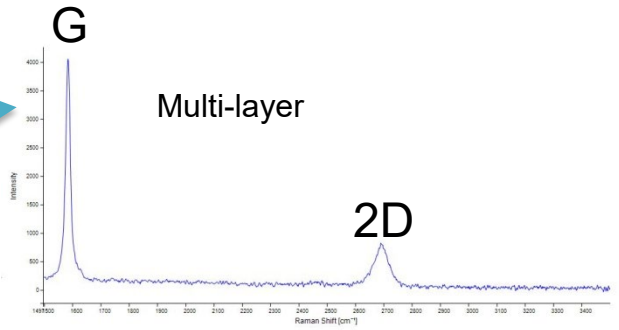
Figure 7. The comparison of μPL and transmittance spectra of three bulk samples of (a) $ReSe_2$, (b) $ReS_{0.8}Se_{1.2}$ and (c) ReS_2 to show their indirect and direct light emissions.

RAMaker-532nm

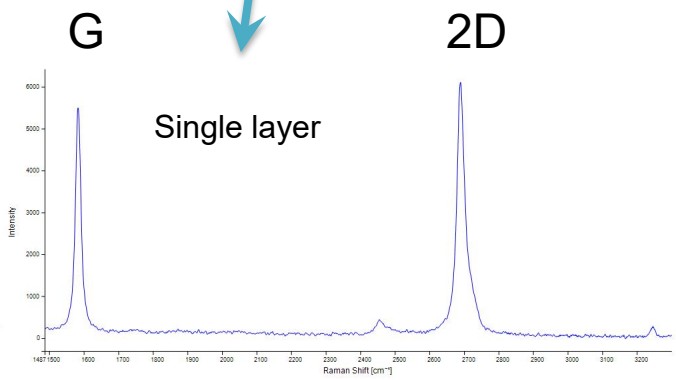
期刊來源：S. Hy et al. / Journal of Power Sources 256 (2014) 324e328

Graphene sample Raman mapping

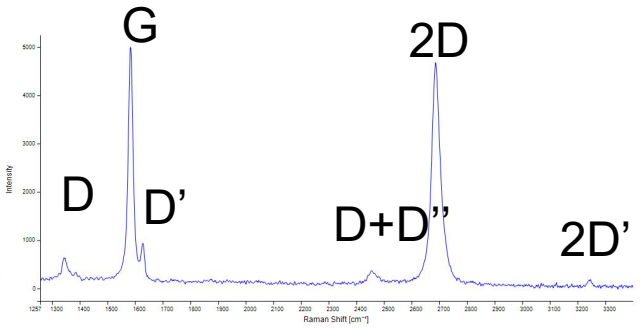




Multi-layer



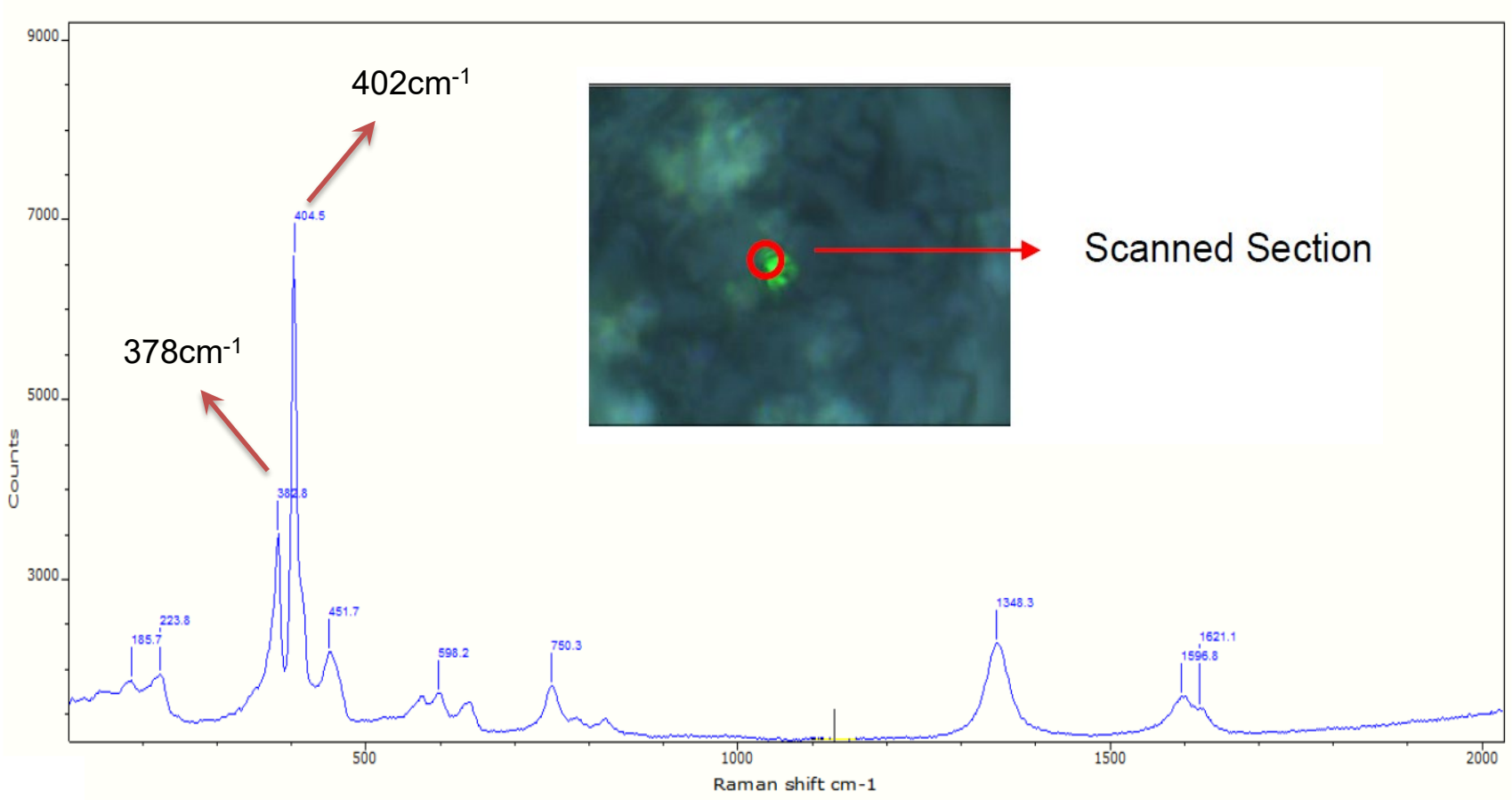
Single layer



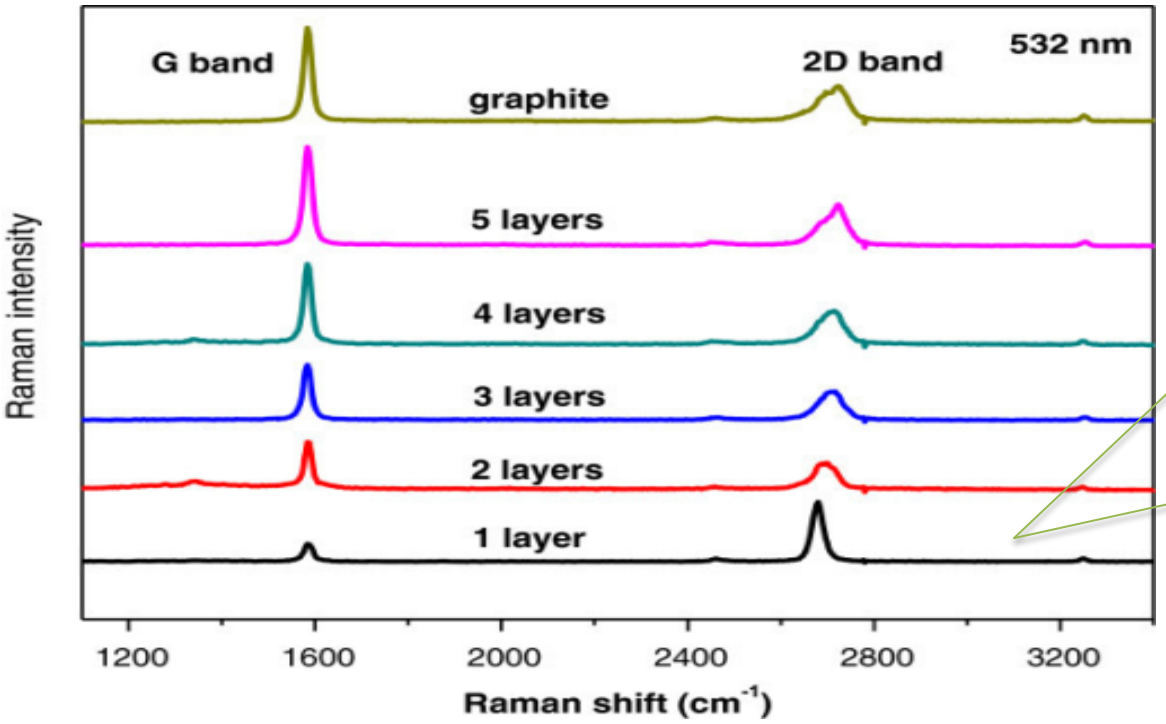
Double Layer with defect

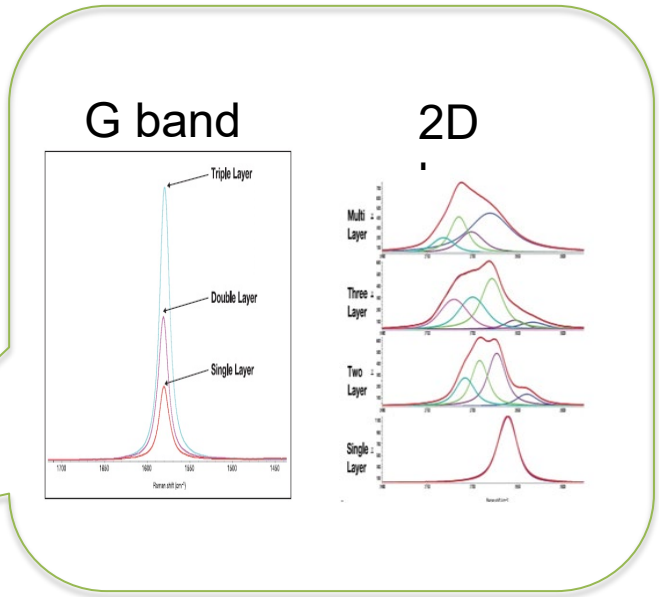
MRI-532nm

MoS_2 Raman Spectrum



Graphene Quality by Raman





(a) G band represents the planar sp^2 bonded carbon that constitutes graphene.
(b) 2D band Change shape as the layer thickness increase.