

## Supplementary Materials

# Germanium Nanoparticles Prepared by Laser Ablation in Low Pressure Helium and Nitrogen Atmosphere for Biomedical Applications

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### 1. SEM and EDX

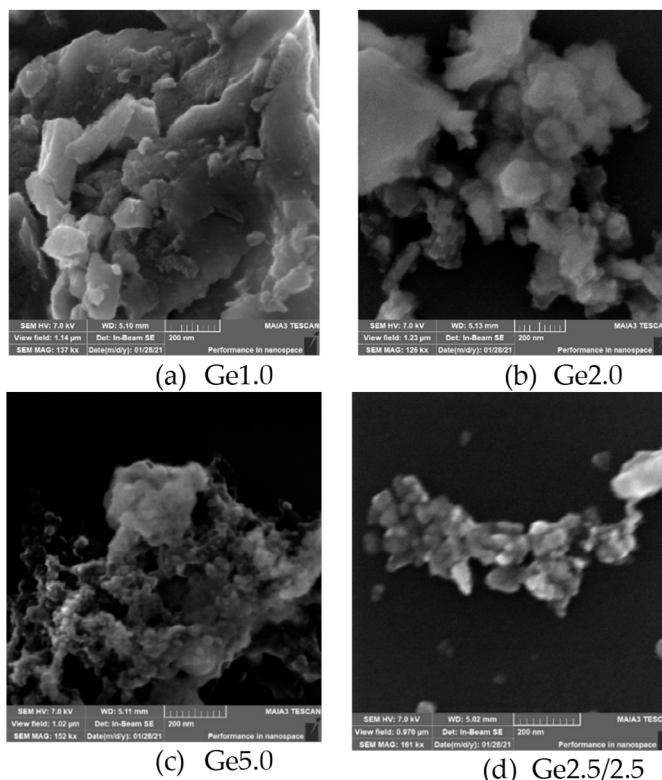
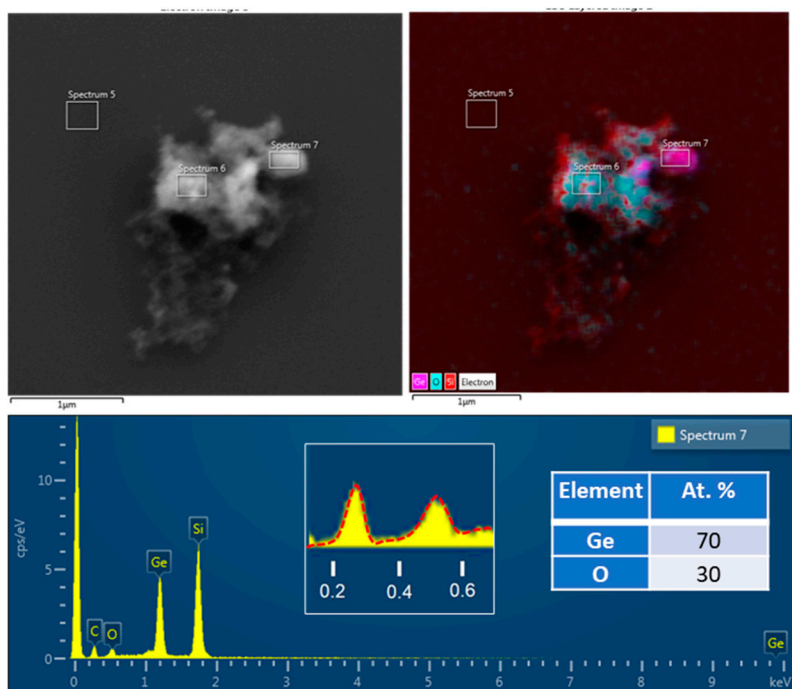


Figure S1. SEM images of selected regions of the PLD-deposited Ge films prepared at different gas mixtures.

(a)



(b)

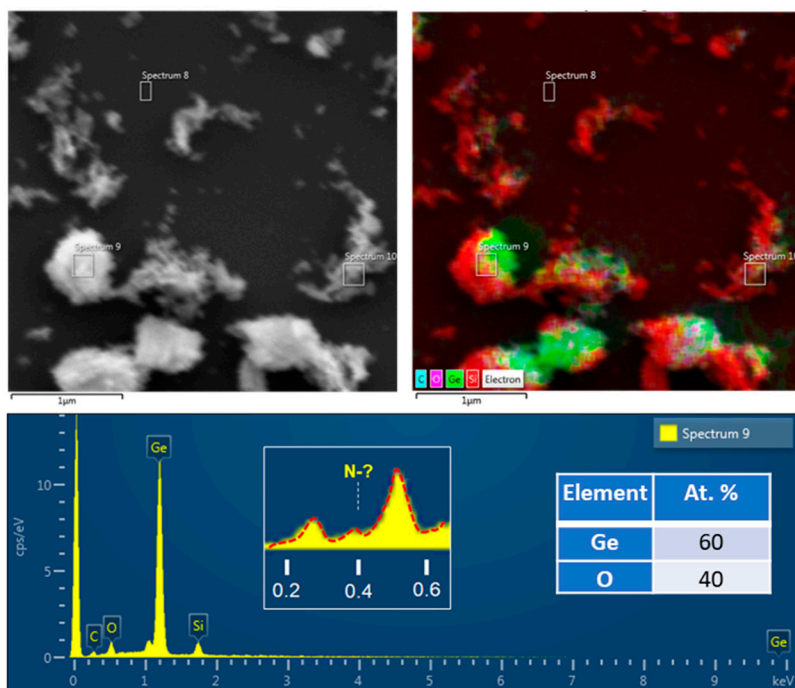


Figure S2. EDX elemental analysis of (a) Ge5.0 and (b) Ge2.5/2.5 films.

## 2. Raman and PL spectra

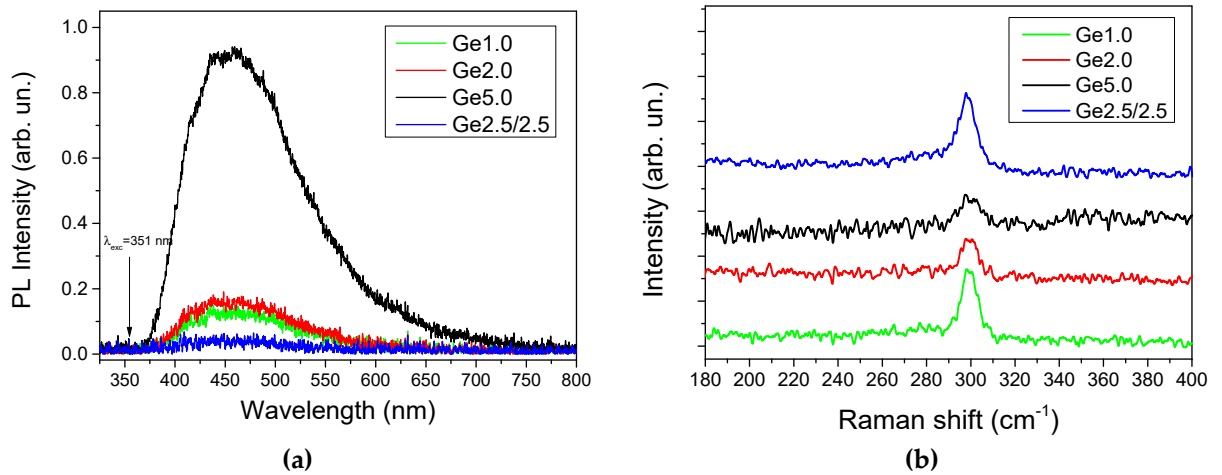


Figure S3. (a) Raman spectra of PLD-deposited Ge films on c-Si substrate under excitation at 632.8 nm; (b) PL spectra of the same films under laser excitation at 351 nm.

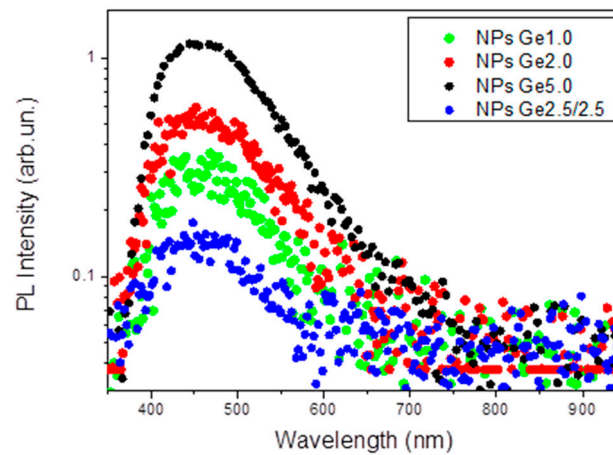


Figure S4. PL spectra of dried suspensions of Ge NPs under laser excitation at 351 nm.