Electronic Supplementary Material (ESI) for RSC Advances


# Supporting Information

Simple and green synthesis of monodisperse silver nanoparticles and surface-enhanced Raman scattering activity

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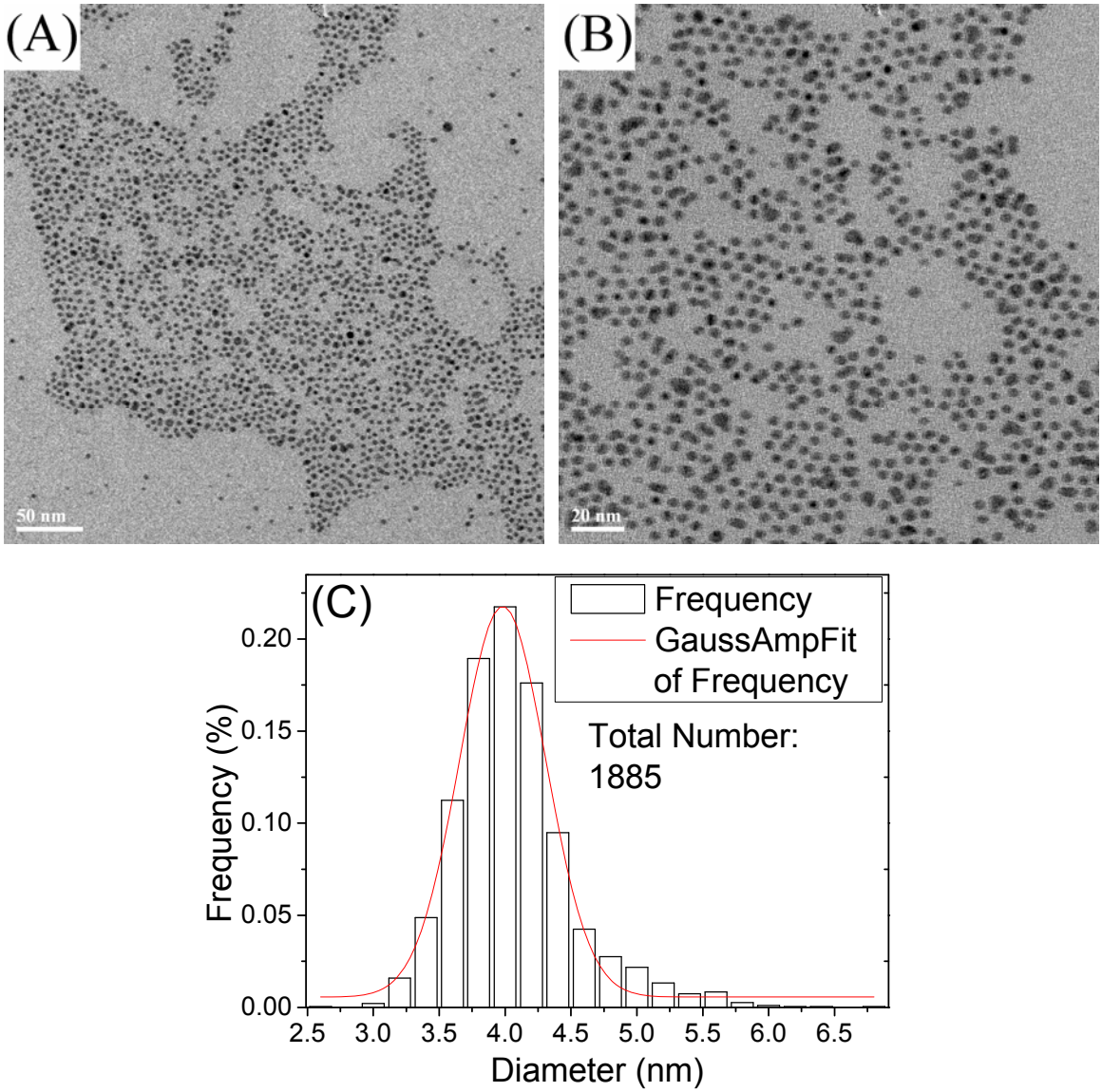


Figure S1 Low magnification (A) and high magnification (B) TEM images of silver nanoparticles synthesized at 150 °C for duration of 15 min. (C) The particle size distribution of the silver nanoparticles obtained from several same resolution TEM images.

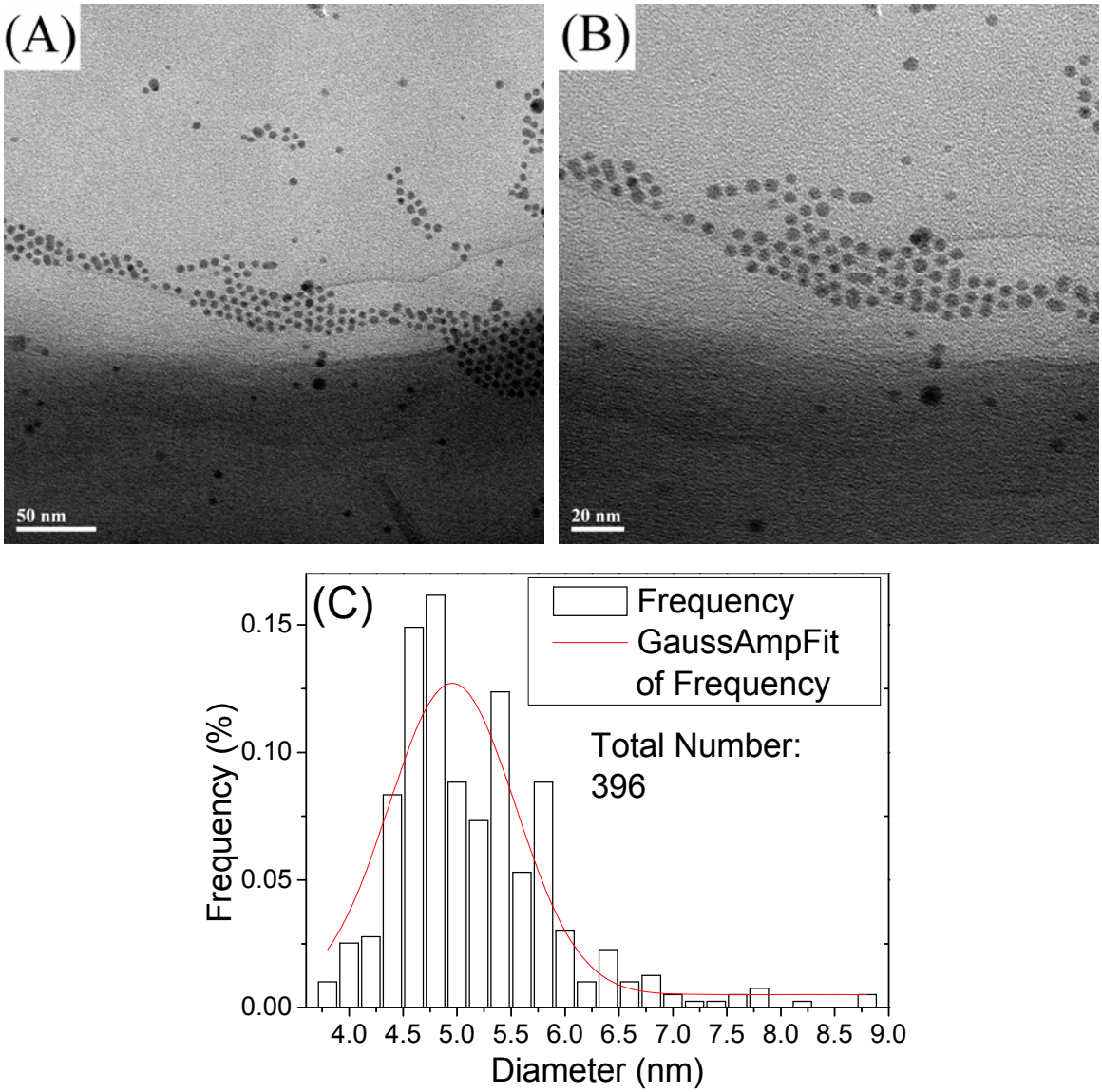


Figure S2 (A, B) TEM images of silver nanoparticles synthesized at 150 °C for duration of 30 min. (C) The particle size distribution of the silver nanoparticles obtained from several same resolution TEM images.

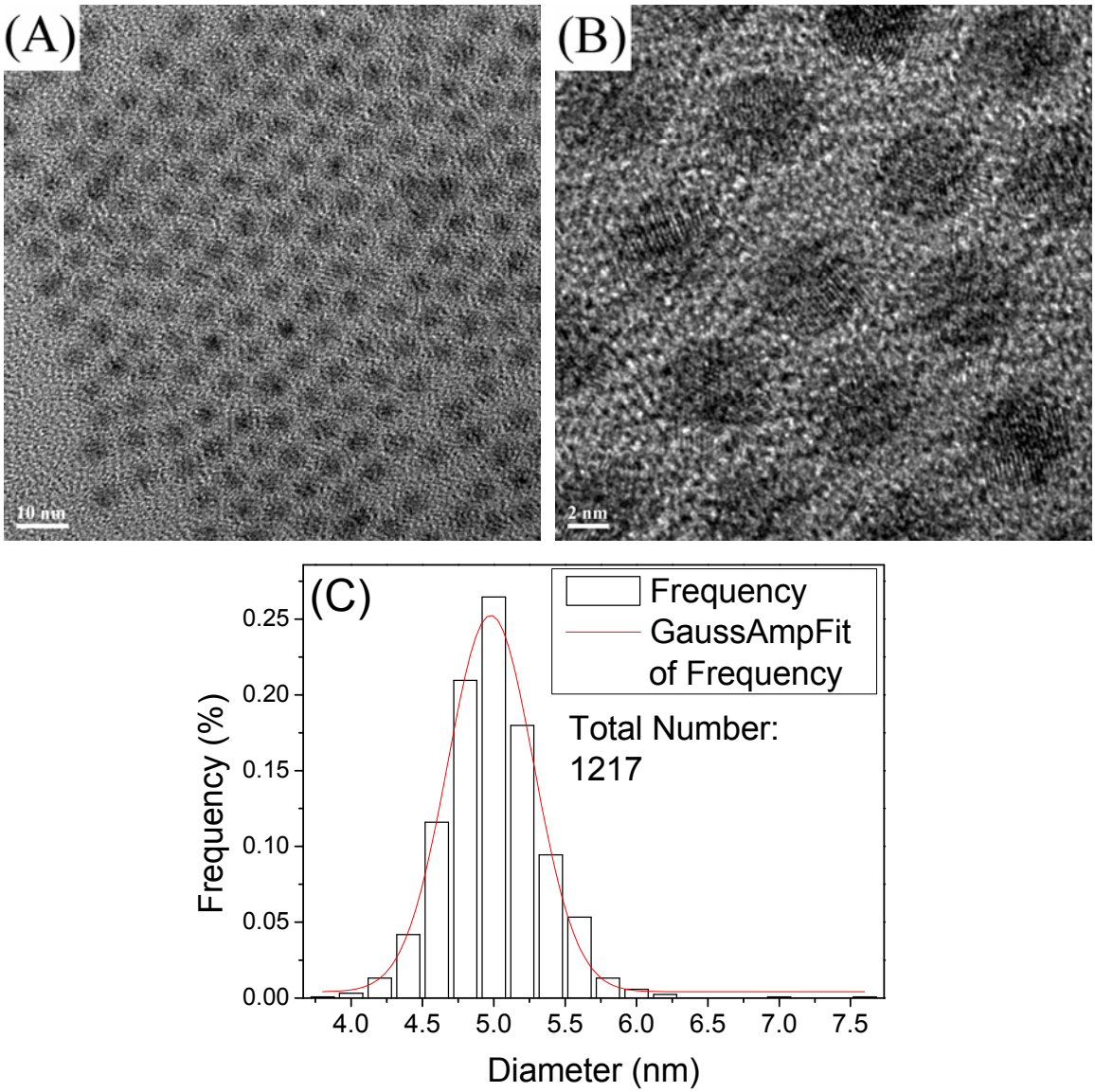


Figure S3 TEM image (A) and high resolution TEM image (B) of silver nanoparticles synthesized at 150 °C for duration of 1 h. (C) The particle size distribution of the silver nanoparticles obtained from several same resolution TEM images.

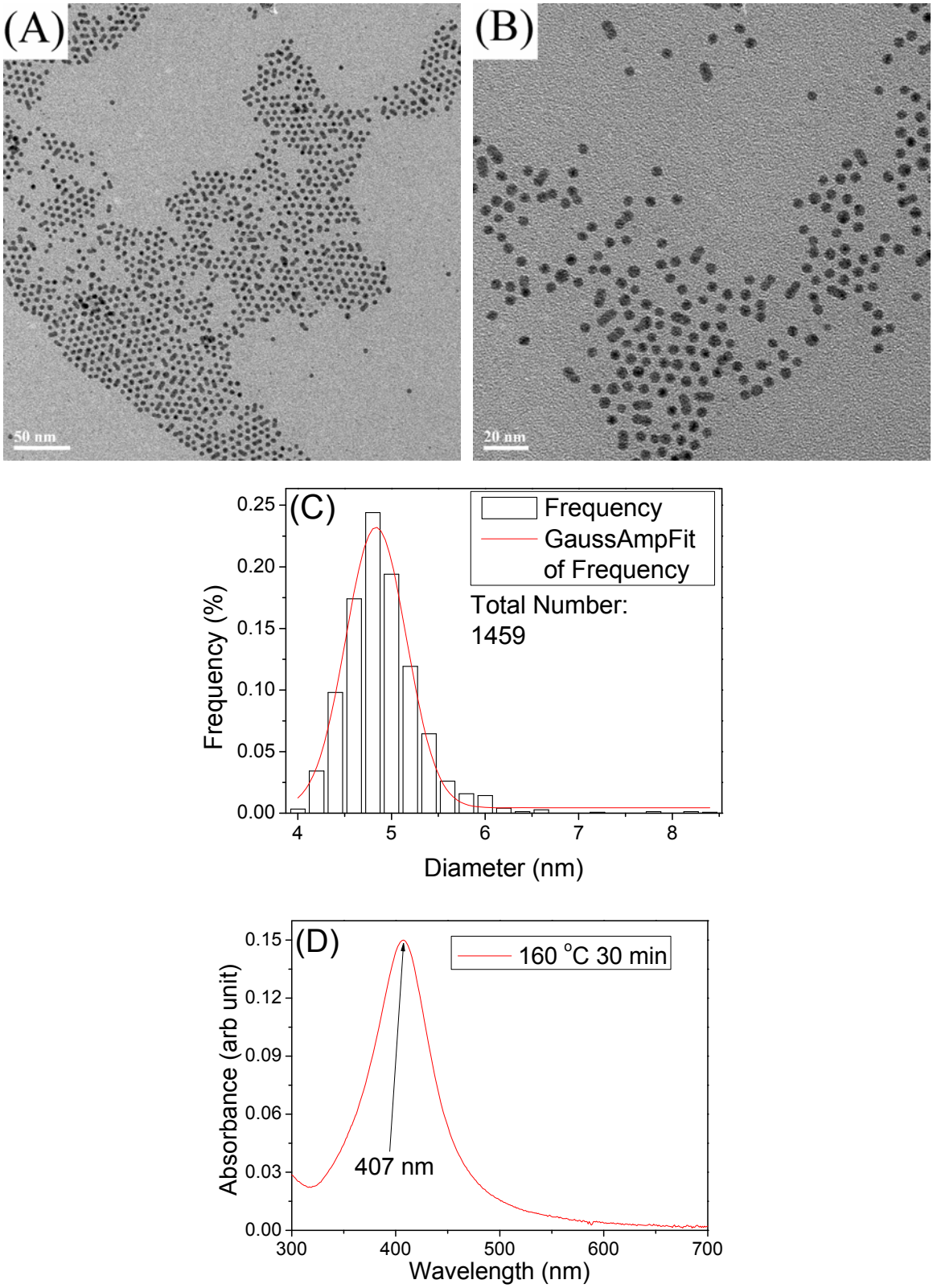


Figure S4 Low magnification (A) and high magnification (B) TEM images of silver nanoparticles synthesized at 160 °C for duration of 30 min. (C) The particle size distribution of the silver nanoparticles obtained from several same resolution TEM images. (D) UV-vis absorption spectrum of corresponding silver nanoparticles.

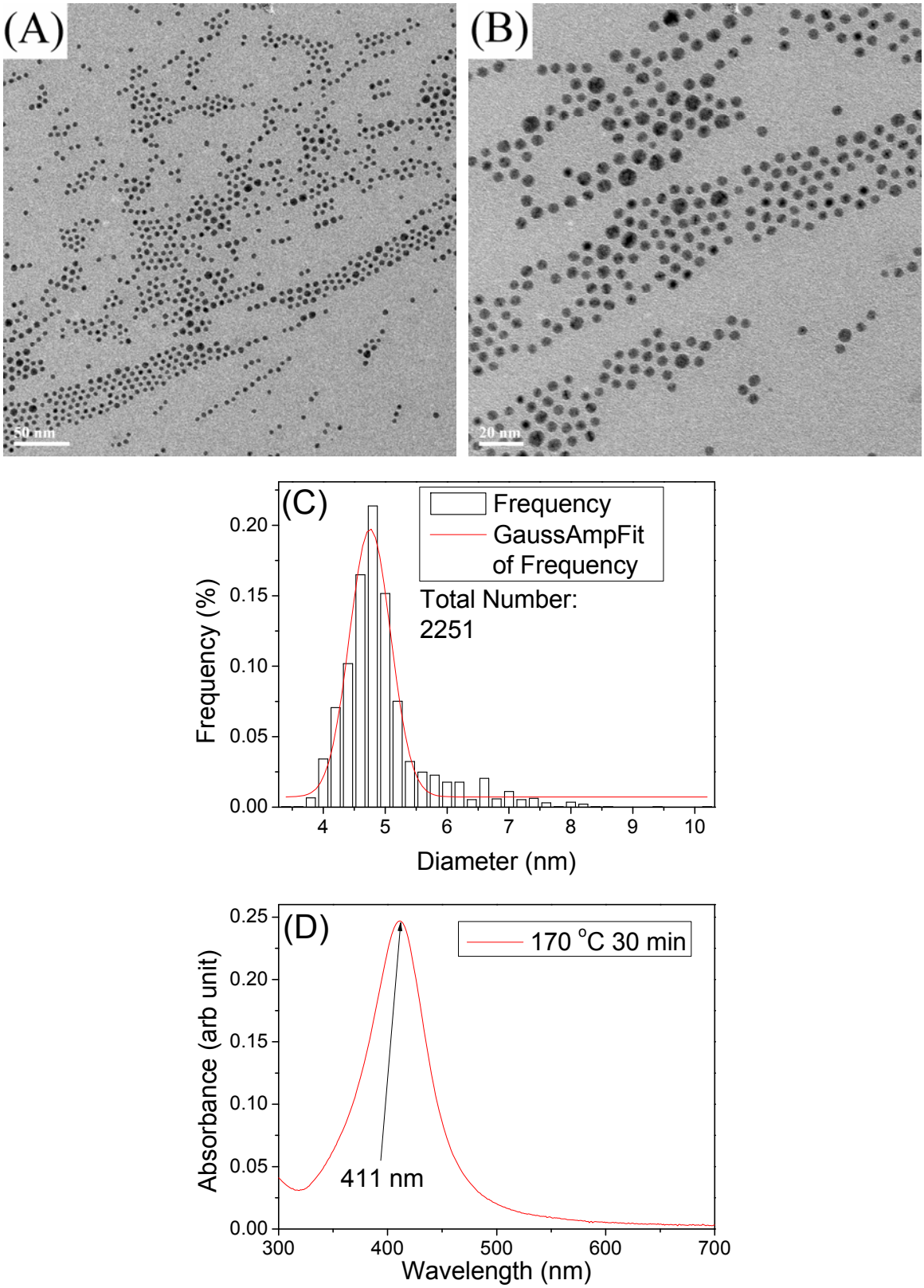


Figure S5 Low magnification (A) and high magnification (B) TEM images of silver nanoparticles synthesized at 170 °C for duration of 30 min. (C) The particle size distribution of the silver nanoparticles obtained from several same resolution TEM images. (D) UV-vis absorption spectrum of corresponding silver nanoparticles.

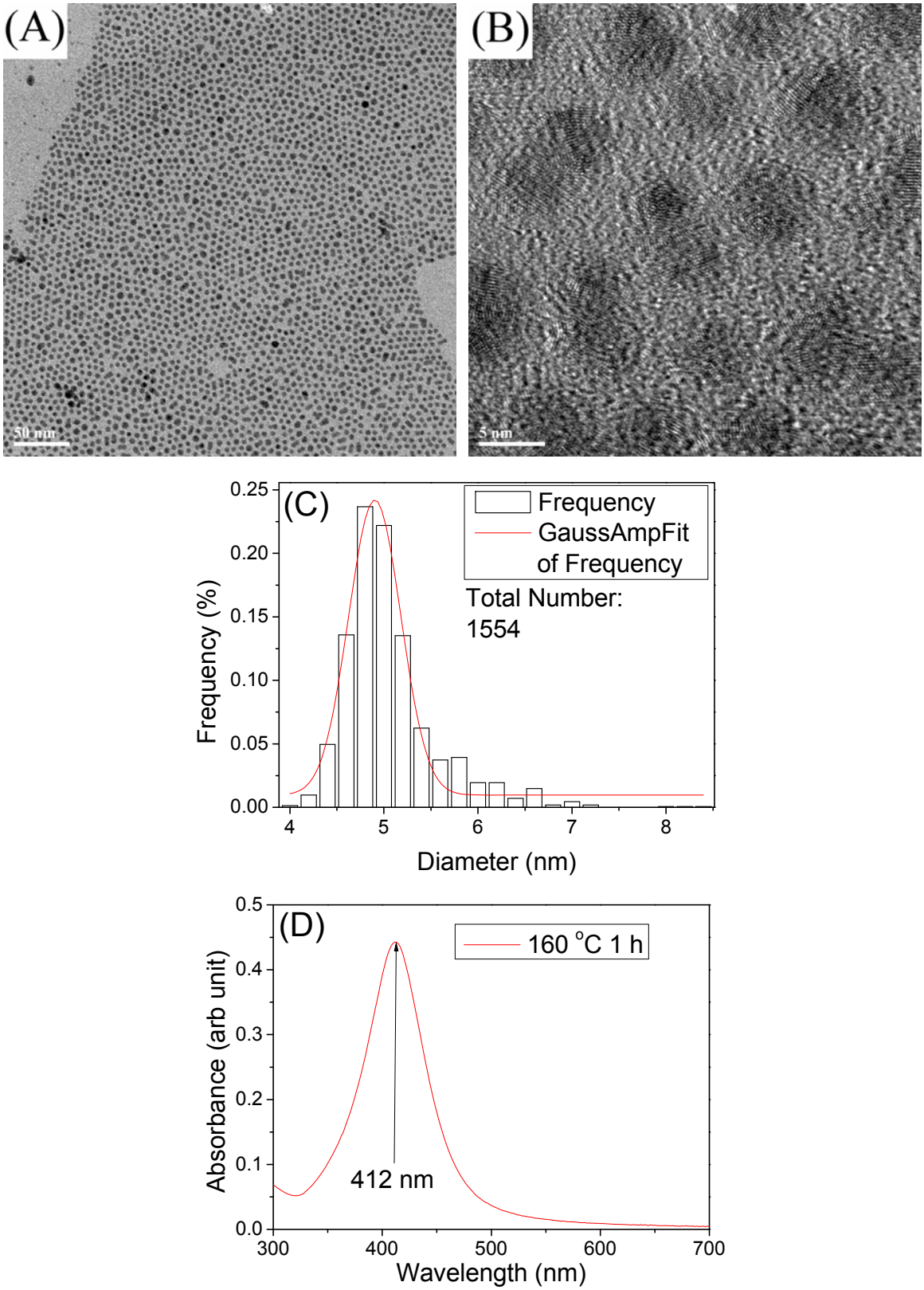


Figure S6 TEM image (A) and high resolution TEM image (B) of silver nanoparticles synthesized at 160 °C for duration of 1 h. (C) The particle size distribution of the silver nanoparticles obtained from several same resolution TEM images. (D) UV-vis absorption spectrum of corresponding silver nanoparticles.

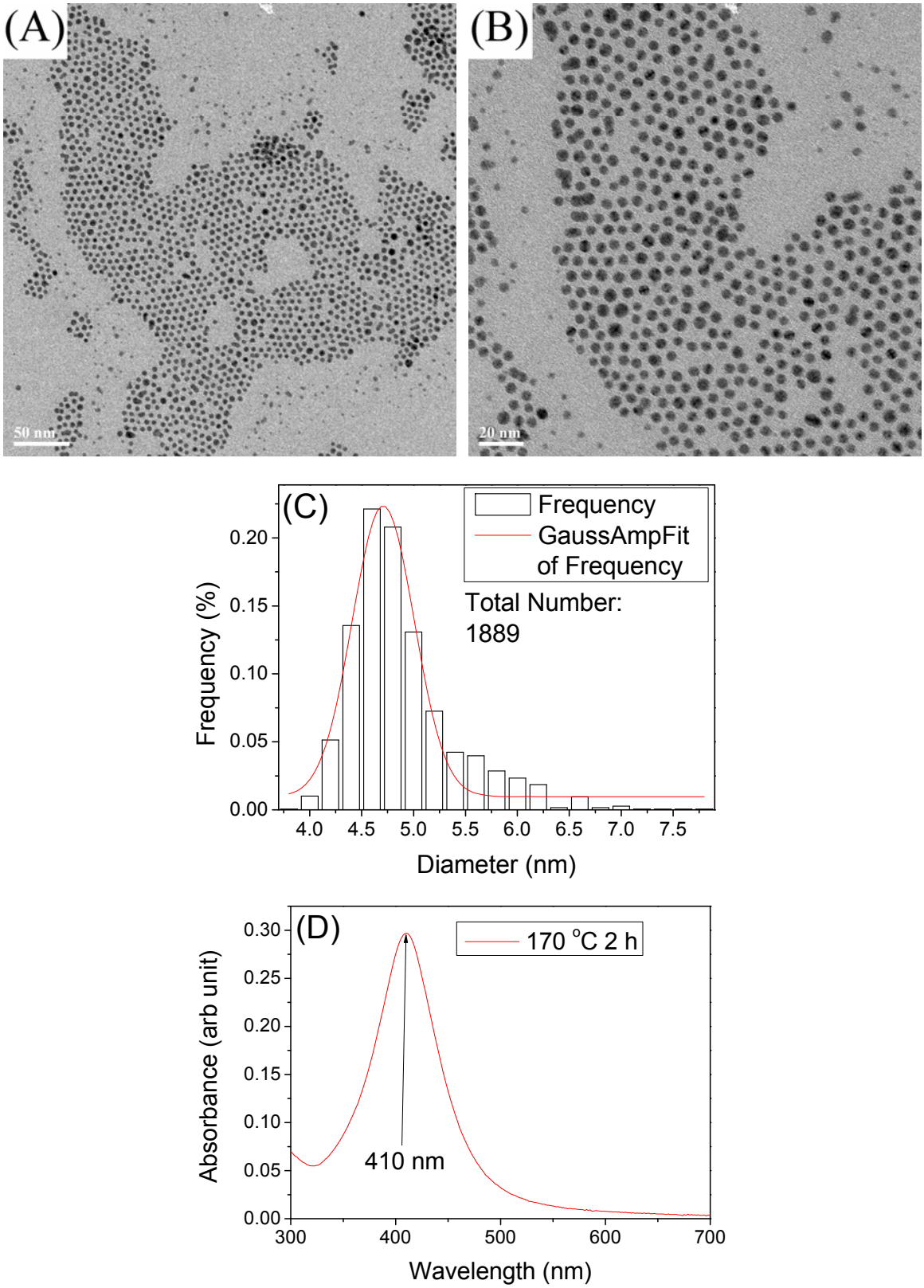


Figure S7 Low magnification (A) and high magnification (B) TEM images of silver nanoparticles synthesized at 170 °C for duration of 2 h. (C) The particle size distribution of the silver nanoparticles obtained from several same resolution TEM images. (D) UV-vis absorption spectrum of corresponding silver nanoparticles.

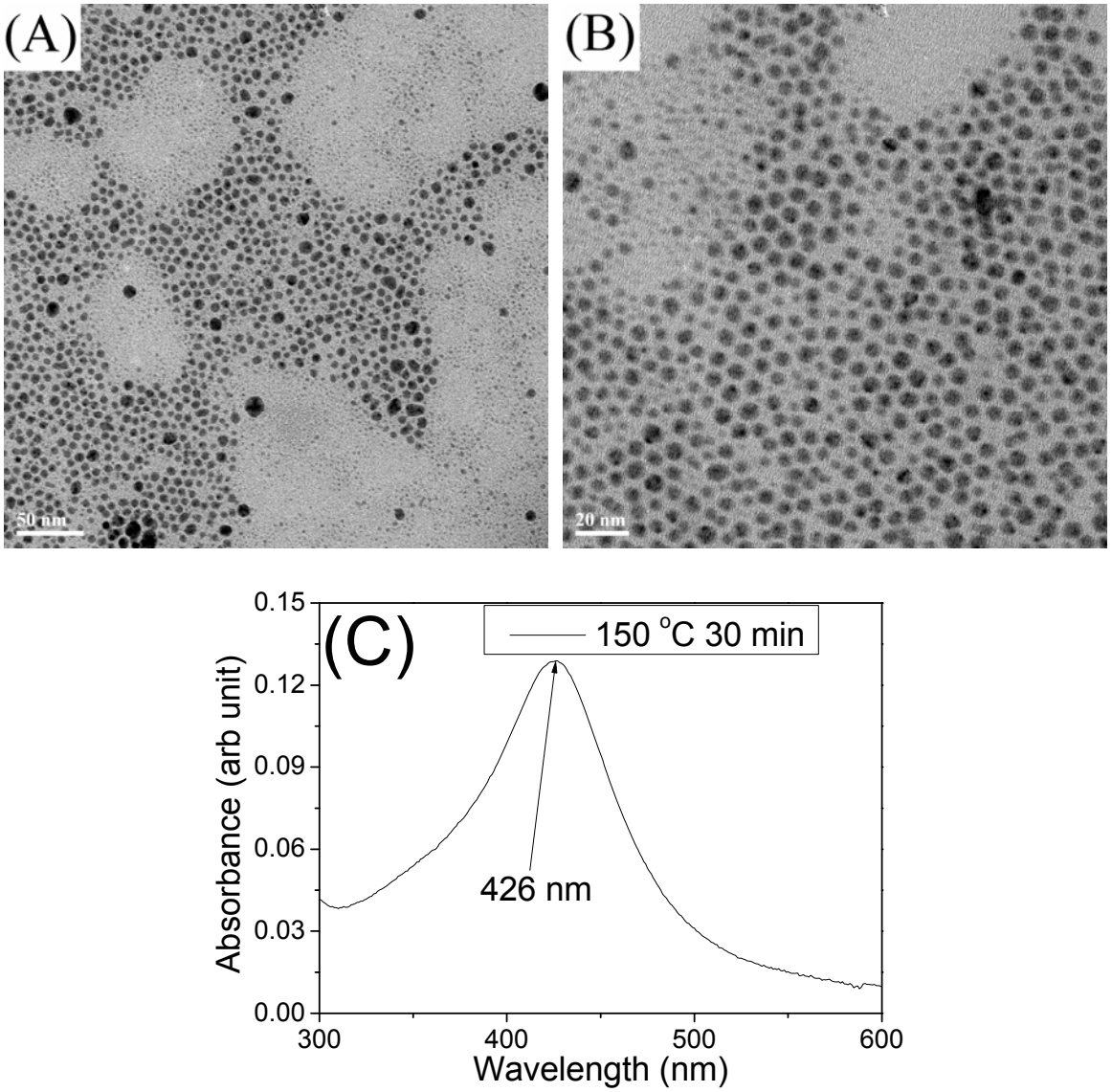


Figure S8 Low magnification (A) and high magnification (B) TEM images of silver nanoparticles synthesized at 150 °C, for 30 min with 100 mM of silver oleate in oleic acid. (C) UV-vis absorption spectrum of silver nanoparticles synthesized at 150 ℃, for 30 min with 100 mM of silver oleate in oleic acid.

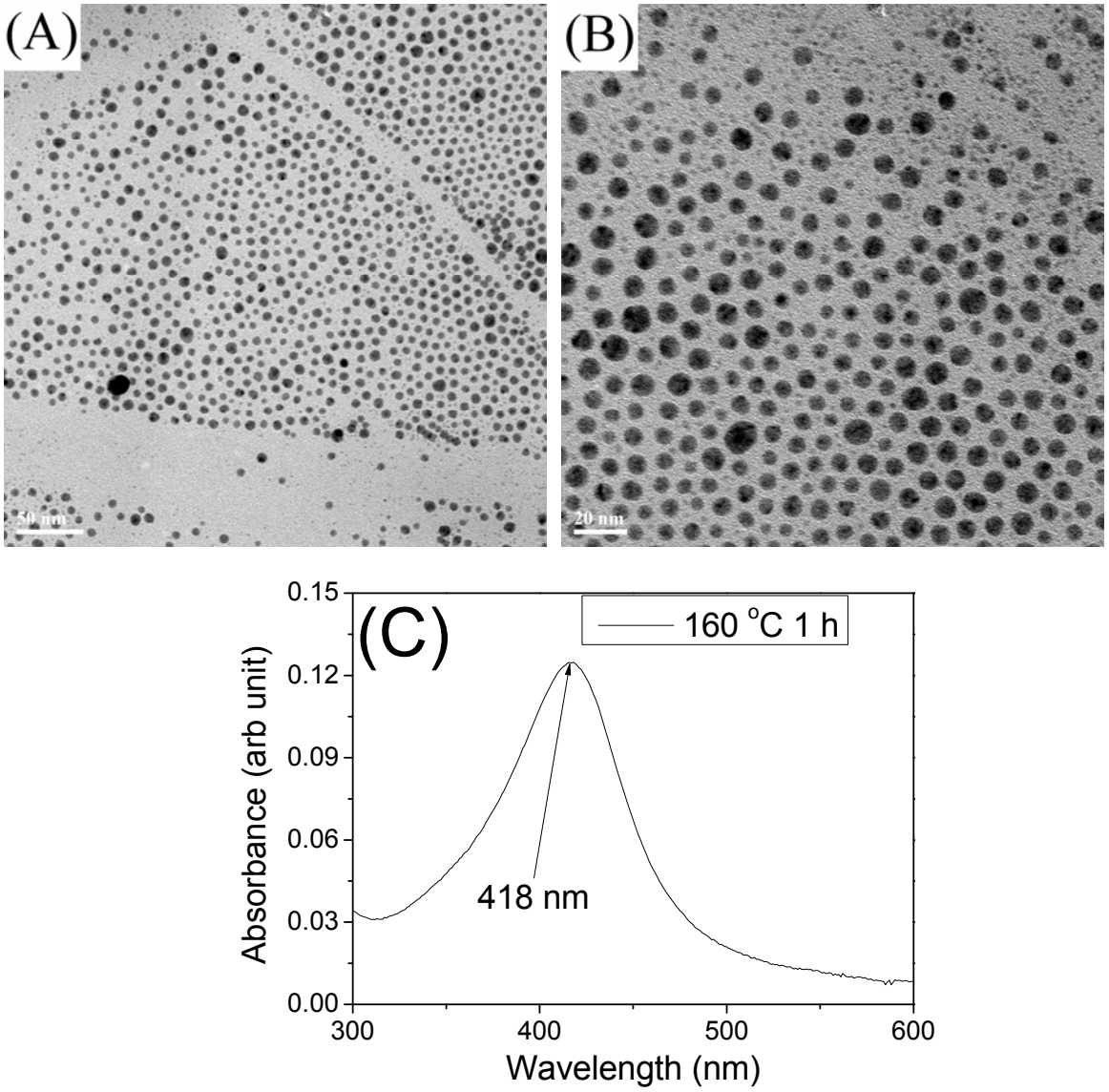


Figure S9 Low mannification (A) and high magnification (B) TEM images of silver nanoparticles synthesized at 160 °C, for 1 h with 100 mM of silver oleate in oleic acid. (C) UV-vis absorption spectrum of silver nanoparticles synthesized at 160 ℃, for 1 h with 100 mM of silver oleate in oleic acid.

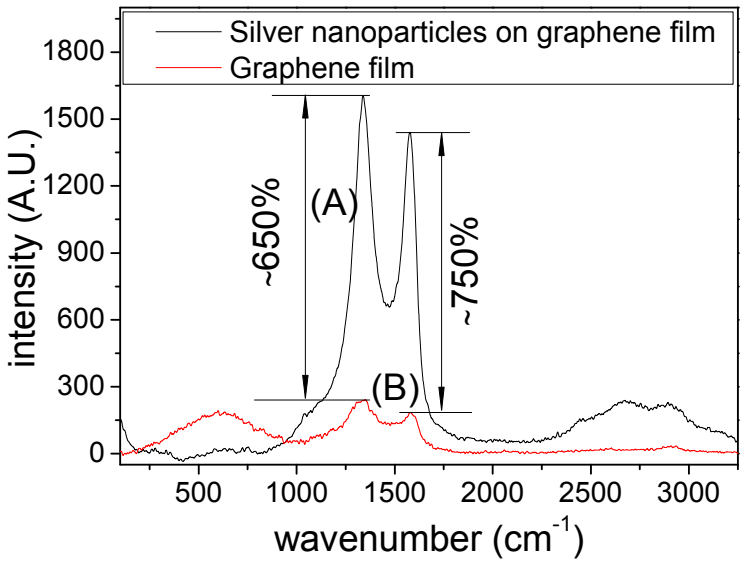


Figure S10 Raman spectra for silver nanoparticles coated graphene film (A) and bare paper-like graphene film (B). After paper-like graphene film was coated with silver nanoparticles, the D-band and G-band intensity increased by roughly six-fold and seven-fold, respectively, in comparison to bare paper-like graphene film.