

Supplementary Information

Resonant Tip-enhanced Raman Scattering by CdSe Nanocrystals on Plasmonic Substrates

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SI-1: Reproducibility of Gap-mode TERS spectra

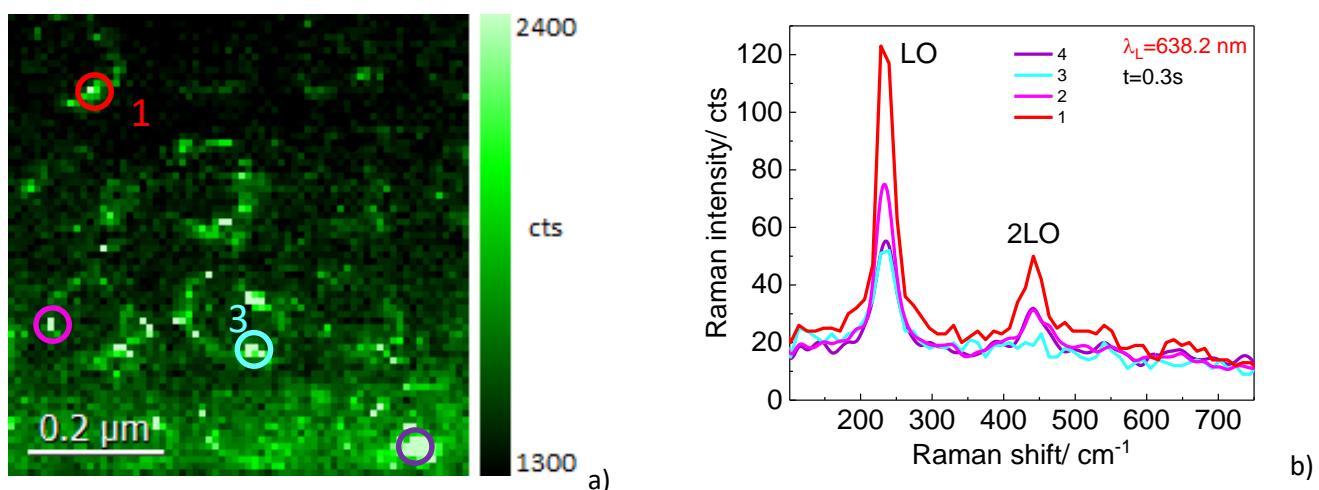
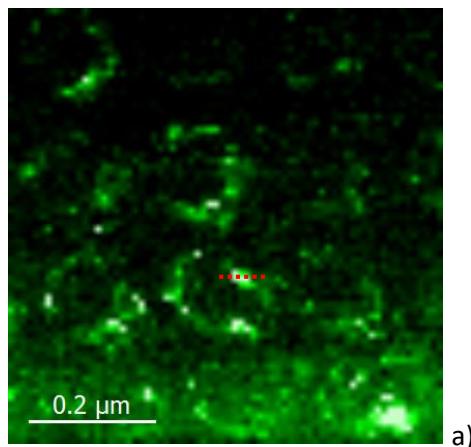
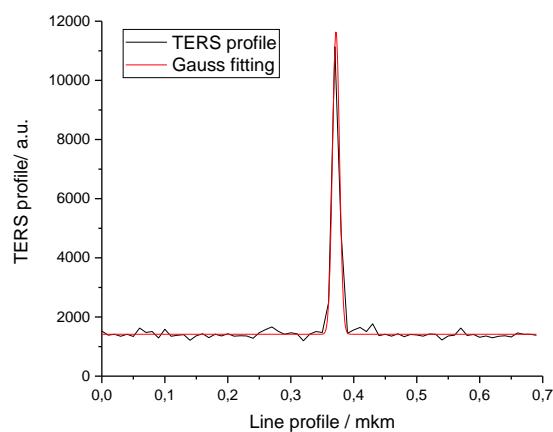


Fig. SI1. (a) TERS intensity image of LO phonon mode from CdSe NCs. (b) Comparison of different TERS spectra of CdSe NCs measured in gap mode. Colored circles in (a) indicate regions where TERS spectra were taken for comparison.

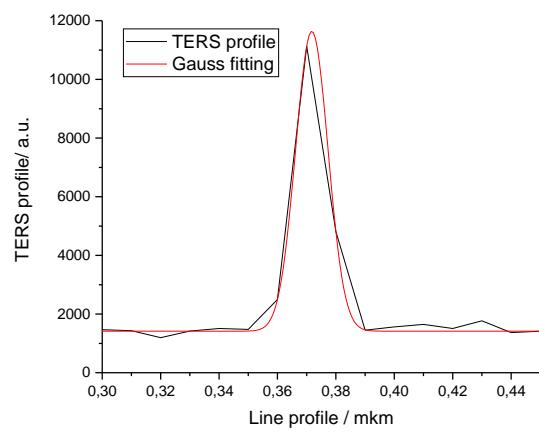
SI-2: Determination of spatial resolution of TERS mapping



a)



b)



c)

Fig. SI2. (a) TERS intensity image of LO phonon mode from CdSe NCs with a red line represents line profile. (b) The line profile was taken in accordance with a red line drawn at (a). (c) Zoomed region from (b) with a Gauss fitting for determination of spatial resolution for TERS mapping.

SI-3: Determination of spatial resolution of TERS mapping

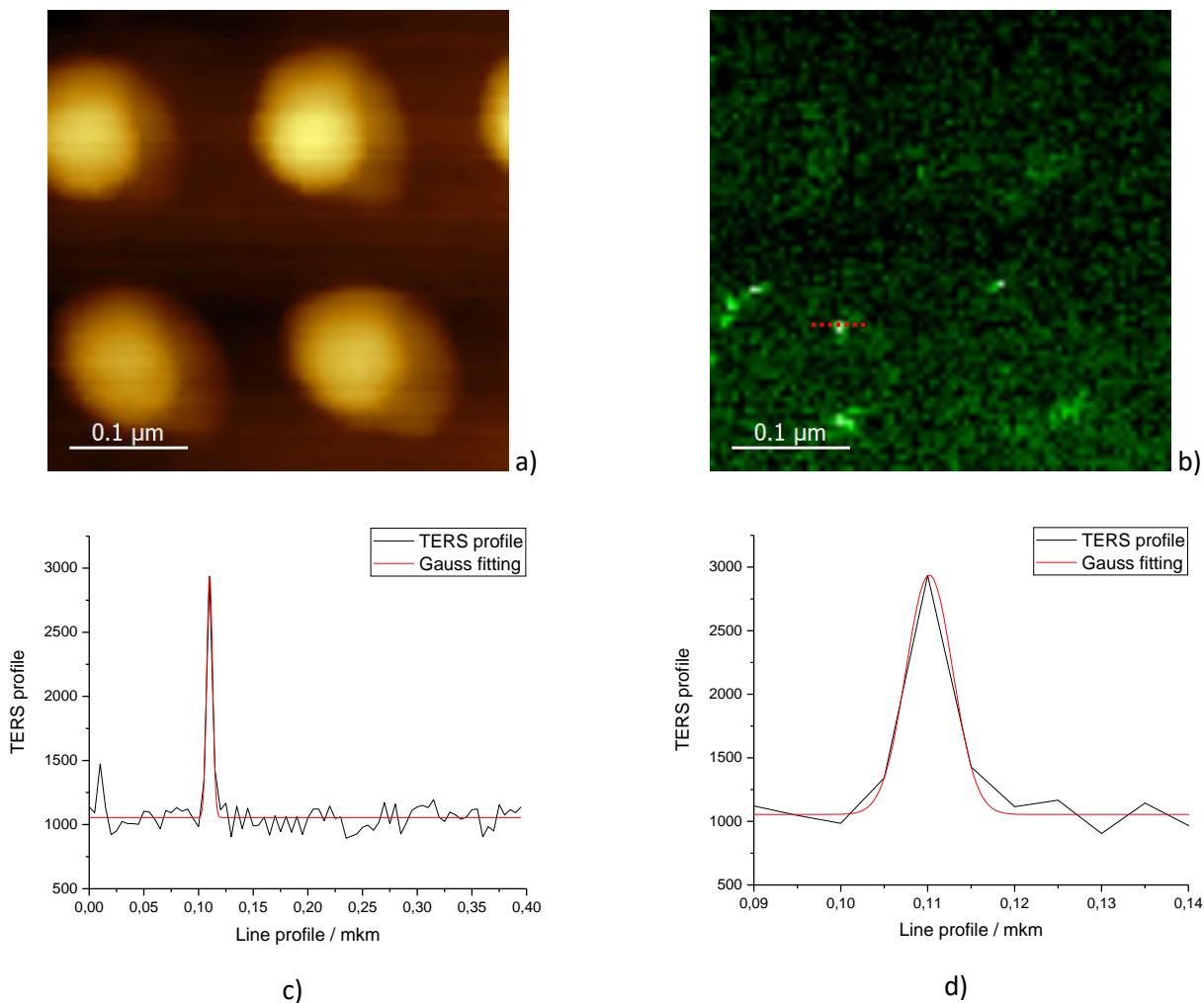


Fig. SI3. (a) AFM topology image of Au nanodisk array with CdSe NCs. (b) TERS intensity image of LO phonon mode from CdSe NCs measured simultaneously with the AFM image shown in figure (a). (c) Line profile was taken in accordance with a red line drawn at (b). (d) Zoomed region from (c) with a Gauss fitting for determination of spatial resolution for TERS mapping.

SI-4: SEM image of nanodisk array

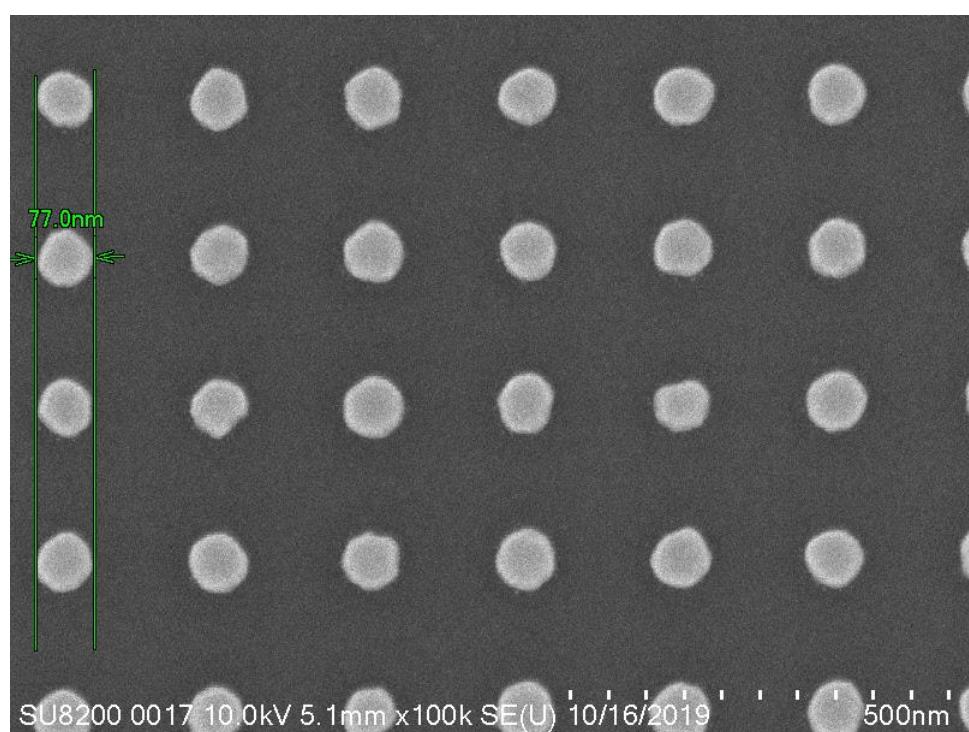


Fig. SI4. (a) SEM image of a fragment of the Au nanodisk array with a period of 200 nm