

Supporting Information for

Largely Enhanced Optical Nonlinear Response of Heavily Doped Ag:CdTe Nanocrystals around the Excitonic Band Edge

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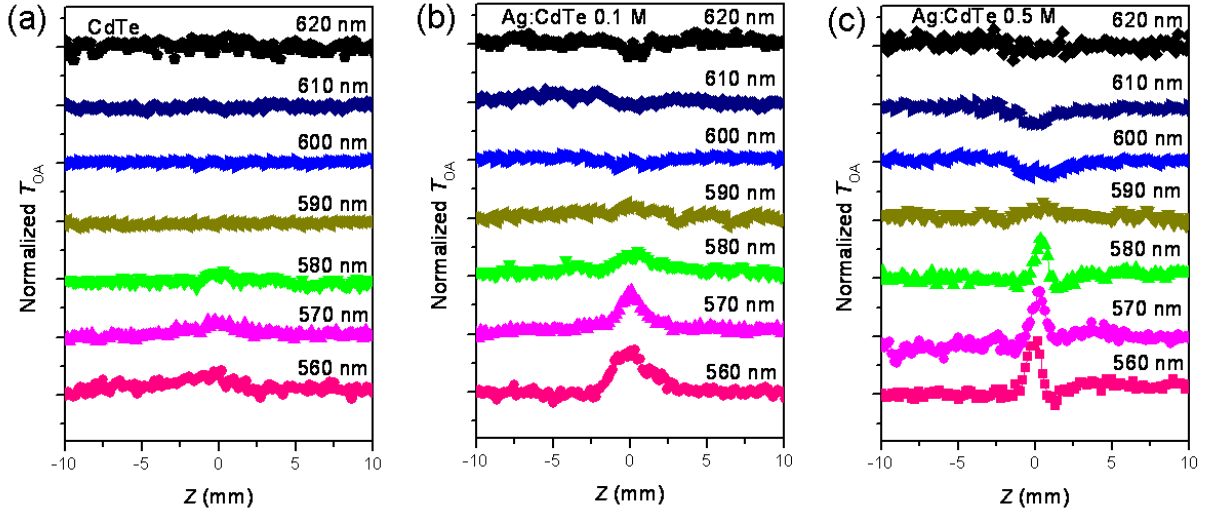


Figure S1. Open-aperture Z-scan nonlinear transmittance (T_{OA}) of the Ag:CdTe SQDs with silver concentration $\rho_{Ag} = 0$ M (a), 0.1 M (b), and 0.5 M (c), which are recorded at the wavelengths of 550, 560, 570, 580, 590, 600, 610, and 620 nm.

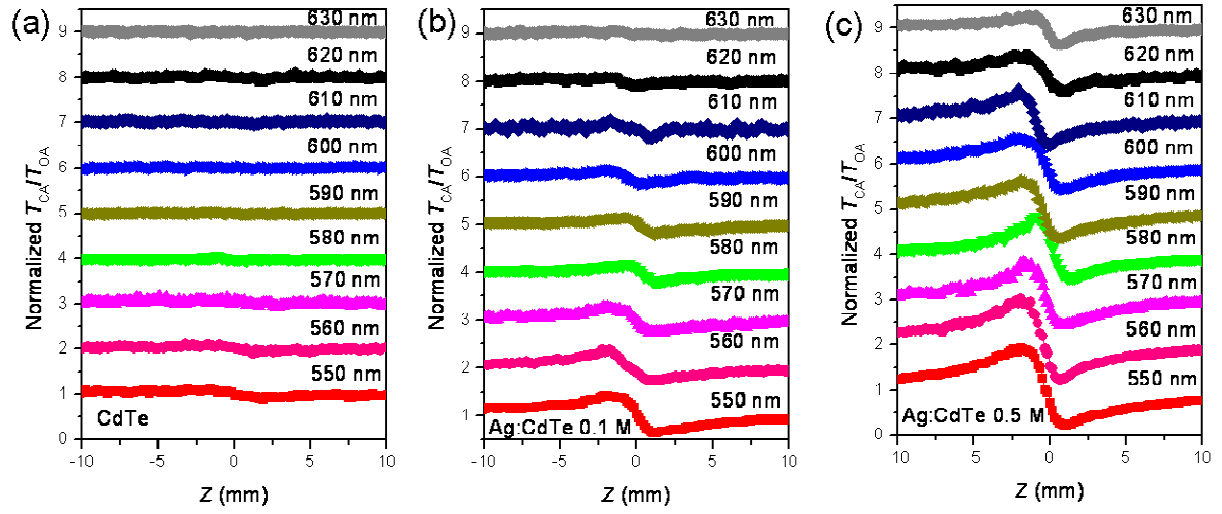


Figure S2. Normalized closed-aperture Z-scan nonlinear transmittance (T_{CA}/T_{OA}) of the Ag:CdTe SQDs with silver concentration $\rho_{Ag} = 0$ M (a), 0.1 M (b), and 0.5 M (c), which are recorded at the wavelengths of 550, 560, 570, 580, 590, 600, 610, 620, and 630 nm.

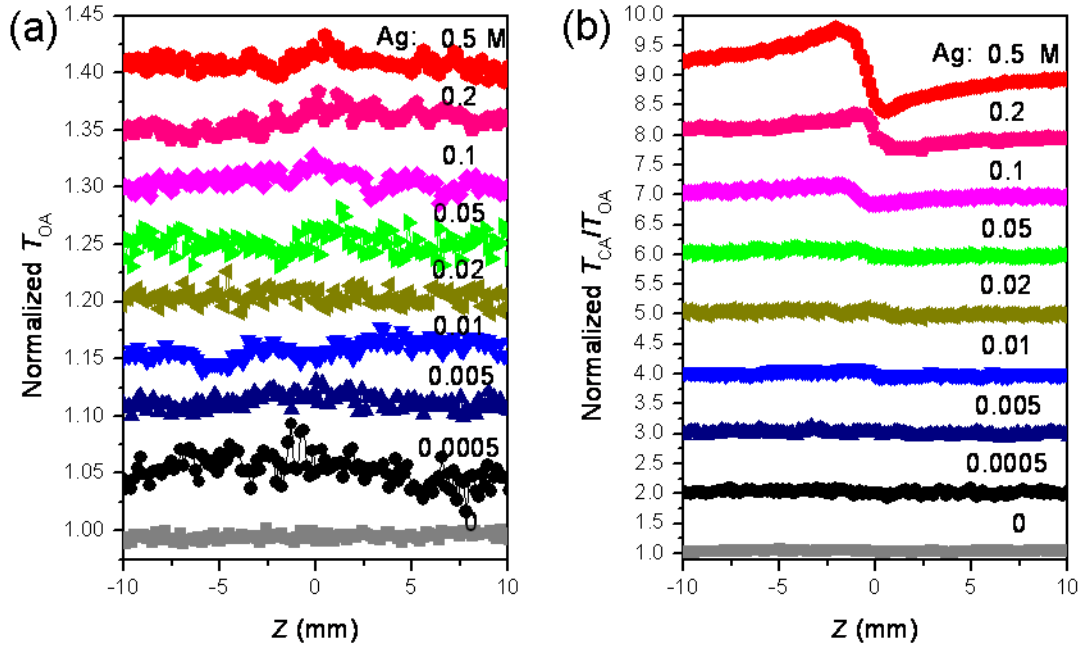


Figure S3. (a) Open-aperture Z-scan nonlinear transmittance (T_{OA}) of Ag:CdTe SQDs with silver concentration $\rho_{\text{Ag}} = 0 \sim 0.5$ M. (b) Normalized closed-aperture Z-scan nonlinear transmittance ($T_{\text{CA}}/T_{\text{OA}}$) of the Ag:CdTe SQDs with silver concentration $\rho_{\text{Ag}} = 0 \sim 0.5$ M. The wavelength is fixed at 590 nm.

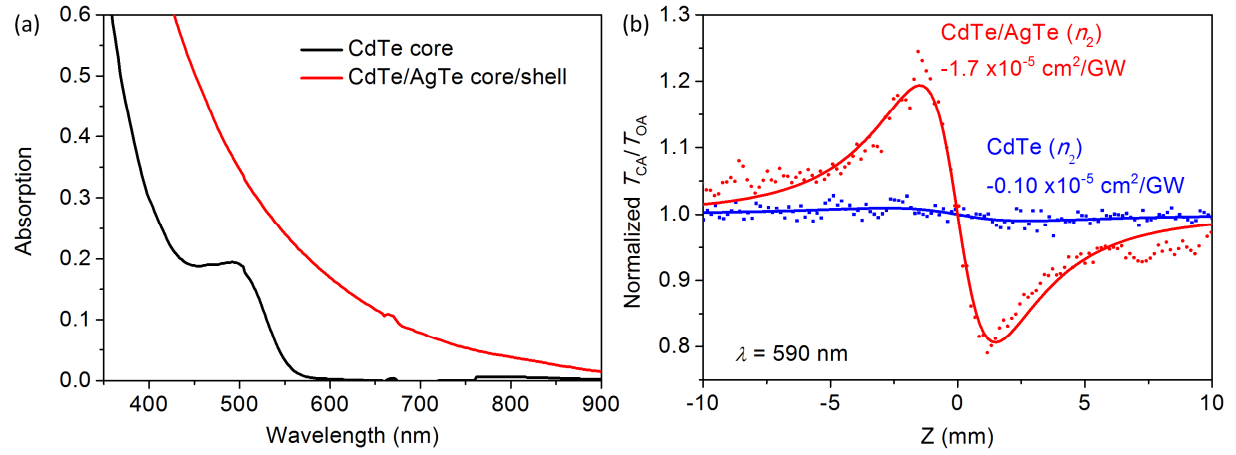


Figure S4. (a) Absorption spectra of CdTe cores and CdTe/AgTe core/shell SQDs. (b) Close-aperture Z-scan nonlinear transmittance of CdTe cores and CdTe/AgTe core/shell SQDs. The nonlinear refractive index of CdTe/AgTe core/shell SQDs is enhanced 17 times comparing to that of the CdTe cores.