Supporting Information

One-pot aqueous synthesis of high quality near infrared emitting Cd$_{1-x}$Hg$_x$Te nanocrystals

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Size-selective precipitation of Cd$_{1-x}$Hg$_x$Te/TGA NCs

The as prepared colloids underwent post-preparative size-selective precipitation according to the procedure described in ref.[1]. The method consists in the gradual precipitation of the NCs induced by portionwise addition of a nonsolvent (2-propanol) into the preliminarily concentrated NCs solution. This technique allows the separation of the initial colloid into several fractions of NCs possessing narrowed size distributions (see Figure SI1 as an example).

Figure SI1. PL spectra of a series of size-selected fractions of Cd$_{0.95}$Hg$_{0.05}$Te/TGA NCs isolated from the as-prepared colloid (black bold line) taken after 25 min of reflux ($\lambda_{\text{ex.}} = 550$ nm).
Figure SI2. Transmission spectrum of benzyl alcohol (a), PL ($\lambda_{\text{ex.}} = 980$ nm) and absorption spectra of IR 26 in benzyl alcohol (b).