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## Product Specification

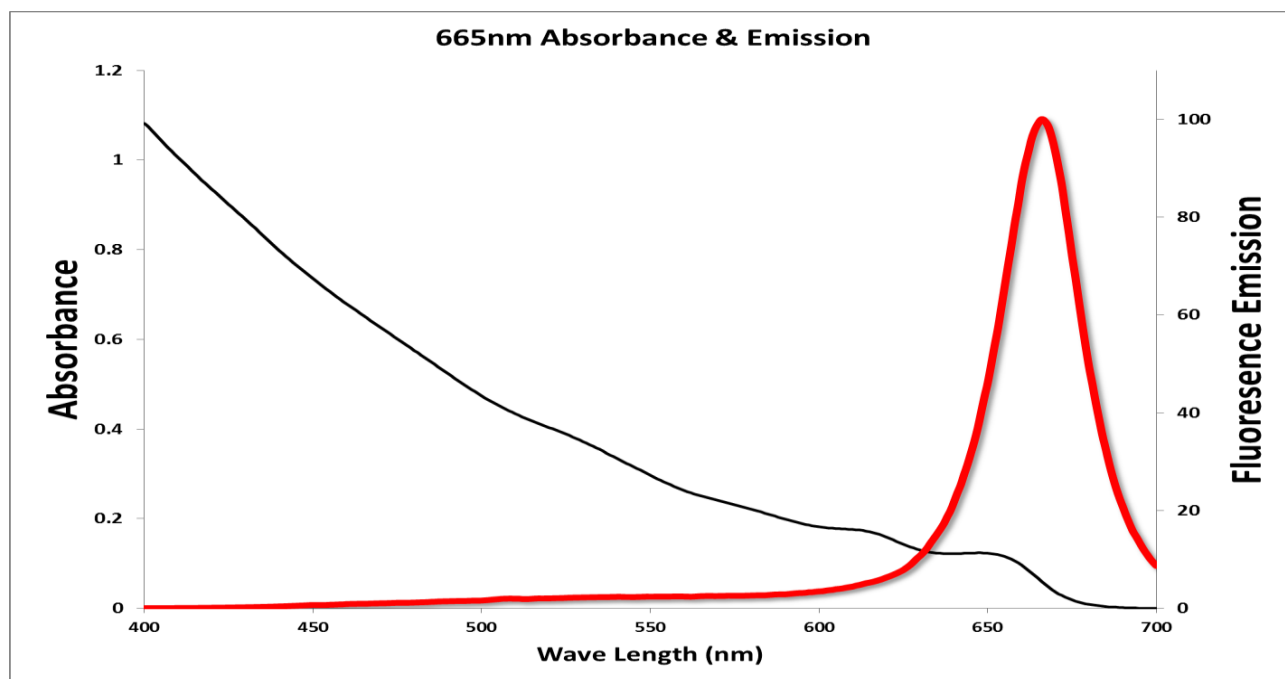
### Product: SpectraDeepRed™ Fluorescent Nanocrystals

#### Contents

The vial(s) contain  $CdS_xSe_{1-x}/ZnS$  core/shell nanocrystals coated with oleic acid as ligand. The physical properties of nanocrystals are as follows: the emission wavelength,  $\lambda_{max}$ , is  $665 \pm 5$  nm; full width at half maximum (FWHM) of the emission spectra is  $30 \pm 5$  nm; size (in diameter) is 6-7 nm; and the quantum yield is 45-55%. The nanocrystals are shipped in either toluene or water solvent, according to customer orders. Nanocrystals are also available in other solvents by request.

#### Instructions

The nanocrystals should be stored in the dark at 4 °C. The shelf life is approximately one year under these conditions. Nanocrystals may be isolated by using a polar solvent/nonpolar solvent precipitation method. Normally, methanol is used as the polar solvent. Nanocrystals will begin to precipitate at 30-40% methanol in toluene. Water-soluble nanocrystals have undergone surface modification to impart water solubility. During use the nanocrystals should not be subjected to ionic concentrations higher than 180 mM or a pH lower than 5.5 or greater than 9.0.



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