

# Resonant Raman studies of compositional and size dispersion of CdS<sub>1-x</sub>Se<sub>x</sub> nanocrystals in a glass matrix

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**Abstract.** Resonant Raman scattering spectra of glass-embedded CdS<sub>1-x</sub>Se<sub>x</sub> nanocrystals are measured and complemented with TEM and optical absorption as well as photoluminescence data. The selectivity of the resonant Raman process not only for the size, but also for the composition of nanocrystals within the ensemble, is directly observed in the dependence of phonon band frequency, linewidth and shape on the excitation wavelength.

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