Poster

EFFECT OF ZNS SHELL ON THE RAMAN SPECTRA FROM CDSE NANORODS

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We investigated the influence of an epitaxially grown ZnS shell on the phonon spectra of CdSe nanorods of different sizes. The CdSe related Raman peaks shift with addition of a ZnS shell. This allows the determination of the lattice contraction introduced in the core: 0.4% for small nanorods, comparable to colloidal core/shell CdSe/ZnS quantum dots of equal size, while neglectable for larger nanorods. The low-energy shoulder shifts stronger with addition of a shell which can be explained within a model for surface optical phonons.