

**EXPERIMENTAL OBSERVATION OF THE RADIAL BREATHING MODE IN
NANORODS**

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We present an experimental investigation of the radial breathing mode in CdSe nanorods of various sizes. We employ low-temperature Raman scattering experiments to determine the size dependence of the modes frequency. The radial breathing mode is, as predicted by ab initio calculations, highly diameter sensitive and can be used to estimate the nanorods diameter via Raman scattering experiments and is especially useful to estimate diameter variations of very small structures.