
Bernard Jusserand

Institut des NanoSciences de
Paris, Uni. Pierre et Marie Curie
France

Polaritonic resonances for optomechanics

We report on huge increases of the photoelastic coupling in GaAs/AlAs multi-quantum wells when the wavelength is in resonance with excitons. We quantitatively reproduce the resonant intensities for temperatures between 30 and 300K in terms of a light scattering model based on polaritonic excitations. We discuss the possibility of an absolute determination of the resonant photoelastic coefficients.