

THz radiation emission by phonon-polariton coupling in a semiconductor microcavity
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We suggest a scheme to generate THz radiation emission out of a semiconductor microcavity in the strong coupling regime. For this purpose we consider a model of interacting excitons, photons, and phonons which we describe by coupled Heisenberg-Langevin equations. We investigate the conditions necessary to achieve and optimize the THz emission and analyse the characteristics of the emitted photons. Furthermore we discuss a possible experimental realization using state-of-the-art semiconductor microcavities.