

# Entanglement and PL spectra like signatures in cQED via phonon-assisted cavity feeding

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**Abstract.** We propose a theoretical model for a dissipative quantum dot-microcavity system interacting via cavity phonon-assisted (CPA). The Lindblad master equation formalism is considered to study the full dynamics for both weak and strong coupling regime. In particular, this model reproduce the intermediate regime that had reported experimentally as anomalous effect in the photoluminescence spectra. The entanglement sudden death of the system is calculated, we found that revivals and sudden death are evidenced.