

S3-1.6

Population Dynamics in a Modulated Optomechanical Setup

V. Ceban and M. A. Macovei

Institute of Applied Physics, Academiei str. 5, MD-2028 Chişinău, Republic of Moldova

An initially excited two-level quantum-dot embedded on a quantum mechanical resonator is placed in an optical cavity. The quantum-dot has its transition frequency modulated by an off-resonant laser, which leads to a slow-down of the quantum-dot decay within the bad cavity limit. The effect of spontaneous emission control may be enhanced by considering various frequency modulation signals.