

Controlling emission and absorption of light by metamaterials and plasmonic structures

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Metamaterials and plasmonic structures interact resonantly and strongly with light that gives rise to an ability to control the absorption and emission of radiation in these structures and with molecular emitters in the vicinity of these structures. Here I will present our recent experiments and calculations with regard to Surface enhanced Raman scattering, surface modified fluorescence and designing perfect metamaterial absorbers of radiation.