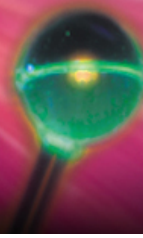


Department of

$\langle AP | \hat{h} | MS \rangle$
Applied Physics & Materials Science



Nitrogen-vacancy single-photon emission enhanced with nanophotonic structures

Mikhail Shalaginov

PhD Student, Prof. Vladimir Shalaev Group
Purdue University

Efficient generation of single photons is essential for the development of photonic quantum technologies. We have demonstrated that coupling a nanodiamond nitrogen-vacancy (NV) center to CMOS-compatible nanophotonic structures results in significant reduction of the excited state lifetime, increase in the collected single-photon emission, and modification of radiation pattern. In addition, we studied the effect of increased photonic density of states on spin dependent fluorescence contrast.

Tuesday, August 18, 2015

4:00 p.m.

Watson 104

Caltech



Division of

Engineering and Applied Science

$\langle AP | \hat{h} | MS \rangle$