

Abstract Submitted
for the TSF14 Meeting of
The American Physical Society

Coherent population trapping on vibrational levels in stimulated Raman scattering ADAM VOGT, YURI ROSTOVTSEV, Department of Physics, University of North Texas — We study stimulated Raman scattering in molecular media. The role of rotational levels has been investigated by applying two strong laser fields in a two-photon resonance with a vibrational transition. It has been shown that the molecular vibrational coherence strongly depends on the effect of coherent population trapping for rotational levels. The obtained results are important for application of Raman spectroscopy to molecular detection for engineering, chemical, and biological applications.

Yuri Rostovtsev
Department of Physics, University of North Texas

Date submitted: 26 Sep 2014

Electronic form version 1.4