

Abstract Submitted  
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**Polarization Sensitive Coherent Anti-Stokes Raman Spectroscopy of DCVJ in Doped Polymer**<sup>1</sup> LASZLO UJJ, Department of Physics, University of West Florida — Coherent Raman Microscopy is an emerging technic and method to image biological samples such as living cells by recording vibrational fingerprints of molecules with high spatial resolution. The race is on to record the entire image during the shortest time possible in order to increase the time resolution of the recorded cellular events. The electronically enhanced polarization sensitive version of Coherent anti-Stokes Raman scattering is one of the method which can shorten the recording time and increase the sharpness of an image by enhancing the signal level of special molecular vibrational modes. In order to show the effectiveness of the method a model system, a highly fluorescence sample, DCVJ in a polymer matrix is investigated. Polarization sensitive resonance CARS spectra are recorded and analyzed. Vibrational signatures are extracted with model independent methods. Details of the measurements and data analysis will be presented.

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Laszlo Ujj  
Department of Physics, University of West Florida

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